

free flight • vol libre



6/05
Dec/Jan



A New Beginning

Devising a rational approach to safety in soaring has eluded many pilots and clubs since the beginning of the sport. It has been difficult to put together because of its multiple facets: the personalities of people and the choices they make, the equipment we fly, the conditions we fly in, and the organizational structures and history that both support and bind us to certain courses of action. However, the Safety Management Program that was reviewed and approved on 5 November 2005 by the SAC Board of Directors clearly bears the stamp of a rational approach that is worthy of our acceptance and implementation.

In order to ensure this program is introduced, maintained and modified as required, the SAC Board has appointed Ian Oldaker as the Director of Operations for SAC. His primary responsibility will be to focus the Board's attention on safety and to bring the expertise of the Flight Training & Safety committee to our deliberations. I've asked him to provide the introductory comments below.



Using the concept of *managing* safety is a completely new approach to improving our flying safety. The Flight Training & Safety committee has been working on this program for some time and I am very excited that this is an opportunity for all members of the Association to do their part in improving our safety record. We can't do this individually. We all have to be involved and united. We are looking for leadership in this program from the SAC Board of Directors and the directors of all clubs.

In the past, clubs have had a traditional flight safety approach that was focused on a Safety Officer who usually reported to the CFI or the president. The Safety Officer had limited authority to make changes to enhance safety. The Safety Officer's effectiveness was dependent on his ability to persuade his club's directors to take action. The philosophy we are adopting is that it is the *directors* of a club that are ultimately responsible for its safety. This is the logic that underlies the new safety initiative now being implemented at the national level. The next step will be to introduce clubs to the new operating requirements; we will be holding workshops across the country during the winter to do that.

The SAC Board of Directors and I believe that the introduction of the Safety Management Program and the new Club Safety Program will help us achieve our ultimate goal of reducing the severity and number of accidents and thereby reduce our insurance costs.

Ian Oldaker, Director of Operations, SAC

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Cover

October 6 was great wave day at the Cowley fall camp. Tony Burton, in his Russia AC-4C, soars at 22,000 feet. The Chinook Arch, further east than normal over the Porcupine Hills, was very prominent.

photo: Tim O'Hanlon

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the OnLineContest 2006

Ernst Schneider, Canadian Rockies Soaring

SINCE ITS INTRODUCTION IN 2001, the OLC Canada has experienced tremendous growth throughout the country. In its initial year of 2001, thirty-two pilots totalled 50,000 kilometres for an average of about 215 km per flight. The 2005 season saw 180 pilots flying a total of almost 400,000 kilometres — again, an average of about 220 per cross-country flight.

In 2002 we successfully introduced the Novice, Senior and Junior categories and in 2005 the OLC "League" scoring added for additional excitement. In Europe, the OLC-League has been a major component to increase visibility of our sport in various media. By now, some countries run two major leagues along with regional leagues.

The OLC is on the verge of becoming the official FAI online contest for not only gliding, but also other air sports. The parties have drafted a letter of intent to get this going in the near future.

For 2006 there are again new features and categories to the OLC. Here are the main changes and additions:

- All national OLCs will have an OLC-League now.
For the OLC Canada this will be the same as last year. The league season starts April/May and lasts until August/September. The exact calendar containing the weekends which will count will be published in time before the new league season starts. We are trying to adapt the calendar to reflect Canadian holidays.
- The most dramatic addition is the introduction of the FAI-OLC. This FAI-OLC will run together with the Classic-OLC (the scoring system we have been using since the beginning). The FAI-OLC is scoring triangle flights according to the FAI Sporting Code definition on minimum leg length as a percentage of the distance. No prior flight declaration is necessary. The rules are very easy. The recorded flight track will be optimized to contain the maximum size FAI-triangle according to the Code rule on triangle geometry.
- The optimization is done automatically on the OLC server, or by the use of available software (ie. *SeeYou, StrePla*).

The FAI-OLC has been introduced to provide a playing field for those who are not interested in flying out and return or yoyo flights up and down a ridge. It will be interesting to see where the Canadian hotspots are for big FAI triangles. This should be an interesting race between the pilots flying the prairies and the eastern Canadian pilots who traditionally fly more triangles than the pilots in the mountains. Again, as always with the OLC, the sport will win and we will learn more about our existing flying sites and will be able to explore new ones.

- We all know the club statistics. But new for 2006 is the statistics per takeoff site. All flights originating at one site will be accumulated.
- Flights will be scored exclusively for the OLC where the flight took off. All takeoff sites will be made available via pull-down menu during flight submission and in the updated version of the software packages used for submitting flights to the OLC. The takeoff sites are associated with the according OLC country and automatically advance into the higher categories: OLC Canada → OLC North America → OLC International.

There is already an update for SeeYou, which allows submitting to the 2006 OLC, and as I am writing this the update for StrePla should be available any day.

⇒ next page



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

free flight is the official journal of SAC.

Material published in *free flight* is contributed by individuals or clubs for the enjoyment of Canadian soaring enthusiasts. The accuracy of the material is the responsibility of the contributor. No payment is offered for submitted material. All individuals and clubs are invited to contribute articles, reports, club activities, and photos of soaring interest. An e-mail in any common word processing format is welcome (preferably as a text file). All material is subject to editing to the space requirements and the quality standards of the magazine.

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

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

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Deadline for contributions:

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May, July
September, November

L'ASSOCIATION CANADIENNE DE VOL À VOILE

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

vol libre est le journal officiel de l'ACVV.

Les articles publiés dans *vol libre* proviennent d'individus ou de groupes de véliplanes bienveillants. Leur contenu n'engage que leurs auteurs. Aucune rémunération n'est versée pour ces articles. Tous sont invités à participer à la réalisation du magazine, soit par des reportages, des échanges d'idées, des nouvelles des clubs, des photos pertinentes, etc. L'idéal est de soumettre ces articles par courrier électronique, bien que d'autres moyens soient acceptés. Ils seront publiés selon l'espace disponible, leur intérêt et leur respect des normes de qualité du magazine.

Des photos, des fichiers .jpg ou .tif haute définition et niveaux de gris peuvent servir d'illustrations. Les photos vous seront retournées sur demande.

vol libre sert aussi de forum et on y publiera les lettres des lecteurs selon l'espace disponible. Leur contenu ne saurait engager la responsabilité du magazine, ni celle de l'association. Toute personne qui désire faire des représentations sur un sujet précis auprès de l'ACVV devra s'adresser au directeur régional.

Les articles de *vol libre* peuvent être reproduits librement, mais le nom du magazine et celui de l'auteur doivent être mentionnés.

Pour signaler un changement d'adresse ou s'abonner, contacter le bureau national à l'adresse à la gauche. Les tarifs au Canada sont de 26\$, 47\$ ou 65\$ pour 1, 2 ou 3 ans, et de 26\$US, 47\$US ou 65\$US à l'extérieur.

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Our OLC coordinator, Tony Firmin, is currently working on the initial list of Canadian takeoff sites and if your takeoff site is not included or if you fly at a new site then the site can be added easily through an email to the administrator.

- The validation process has been streamlined a little bit. Only flights that are valid according to the two following validation levels are scored:

Flight recording with an IGC-approved GNSS recorder (green smiley in the Info window). This validation is necessary for scoring in the OLC-League, the FAI-OLC and all flights with a motorized glider. The approved recorder can be found at www.fai.org/gliding/gnss/.

Flight recording with non-IGC approved GPS recorders where the generated IGC file has been achieved with a software which is approved by the OLC (blue smiley in the info window). The latest approved software is listed at www.onlinecontest.org/validate.php. This will guarantee the quality of flight recording with unapproved GPS recorders in the long term.

For the flight recorders used in Canada, it doesn't change which recorder you can use. Just make sure you use one of the OLC approved software packages to read the flights from your Bonnière, Garmin, or Magellan hand-held GPS.

Good luck and safe flights to everybody for the 2006 OLC season.

the Canadian Decentralized National Competition and the OnLineContest – going forward

When we conceived the rules for the OLC Canada we decided to include the USA as a "Canadian" region to give pilots from central and eastern Canada the opportunity to access soaring conditions in Pennsylvania that are somewhat equivalent to what western Canadian pilots enjoy. To me it made no sense to deny the majority of Canadian pilots the opportunity to be scored on flights in a great task area, right at their doorstep, because of an arbitrary political boundary that happens to run through the Great Lakes instead of 300 kilometres further south. Under these rules, for the vast majority of Canadian pilots from Pemberton, BC to St. Raymond, QC some of the world's best soaring conditions were only a day's drive away.

Unfortunately, in an effort to reduce overhead, the good people of the OLC were unable to continue our special Canadian rules. In my opinion, under the new rules the OLC isn't a meaningful competition at the national level. The soaring conditions across Canada are just too different and the size of the country simply excludes the majority of Canadian pilots from accessing the best conditions.

Nevertheless, the OLC continues to be a great venue for regional competitions, club competitions under the OLC-League, and as an instrument for documenting flights. Going forward, we now have the options below.

- Separate the CDNC from the OLC. Use the OLC as a scoring basis but determine the annual winners of the CDNC according to our own rules. For example:
 - maintain the status quo by continuing to score flights in the USA,
 - restrict US flights to certain sites (PA/Florida or eastern US),
 - allow all flights in Canadian registered gliders/motorgliders,
 - Canadian flights only but with a territorial handicap (like the Barron Hilton Cup).
- Use the FAI-OLC. This levels the playing field somewhat but I have my doubts if we can still have a fair contest.
- Just run the OLC as a series of regional contests. Maybe it's just not feasible to have a fair nationwide contest in a country the size of Canada.

Jörg Stieber, Sporting committee

A look at our soaring instruments

Dominique Veillard
from *Sailplane Builder*

a review of the instrument panel shows that there's one missing!

LET'S START WITH THE ALTIMETER. This is a cleverly modified barometer, an indicator of static air pressure, with the dial carrying the numbers in the reverse sequence (less pressure, more height), and calibrated to show feet above sea level instead of pressure values. Ideally, it will give an accurate reading of pressure altitude. This is not true altitude, but it is the closest approximation available for a reasonable expenditure of resources, so it is commonly relied upon in spite of its shortcomings, which are well understood.

In order to be as truthful as possible, the altimeter should be sensing the static pressure of the air mass being visited at the time, which means in practice that its bellows should be connected via a hose (preferably one that is both non-leaking and unplugged) to a static port somewhere on the outer skin of the aircraft. Unfortunately, the accuracy of the static pressure sensing is threatened by parasitic sensing of dynamic pressure changes due to the rapid motion of the aircraft. A truly static port, effectively excluding any unwanted dynamic pressure inputs in all flight attitudes, is hard to implement in reality, but a good approximation can be obtained by combining several static ports on opposite sides of the hull, whose individual errors will tend to compensate for each other during flight maneuvers.

The difference between true altitude and pressure altitude can be relatively small in many circumstances, in practice even smaller than the errors due to the shortcomings of the static port, so an attempt to correct the readings to display true altitude could well be futile in normal soaring practice, where we see where we are going. In a glider, with little electrical power on board, the principle of maximum simplicity commands a lot of respect; simplicity of the hardware can be the best protection against instrument failure, an outcome that most pilots would consider worse than moderate instrument inaccuracy.

How about the airspeed indicator? This instrument should respond precisely to the square root of the dynamic pressure due to forward progress within the airmass. The pitot tube (similar in some way to a static port, but purposefully directed into the incoming airstream) produces a pressure signal that is the sum of the static pressure and the dynamic pressure, so the airspeed indicator has to respond to the rather small difference between the pitot tube signal and the static port signal.

In the best case, this setup will give an accurate reading of what is prudently known as "indicated airspeed". This is not true airspeed (which would require further corrections), but it is a valuable indication for basic flying purposes. Any deficiency in the performance of the static

port or the pitot tube will cause the airspeed indication to be in error, so the potentially subtle correction we would attempt in order to convert indicated airspeed into true airspeed could easily be meaningless, particularly at low altitudes.

In any case, in addition to its respect for the simplicity principle, the standard ASI gives readings that are more useful than true airspeed to recognize our flight regime status relative to stall speed, best glide speed, maximum maneuvering speed, and speed-to-fly. We should keep in mind that the airspeed indicator, in processing two variables instead of one, has the potential to violate the simplicity principle twice as severely as the altimeter does. Fortunately, a stall maneuver is usually enough to provide a sanity check in case of serious doubt about the validity of its calibration.

How about the jewel of glider flight instruments, the variometer? Even in its simplest form (the so-called "uncompensated" vario), this device has to produce a reading of the difference between what the static pressure is and what it was just a few seconds ago — we would like it even better if it took into account what the static pressure will be a few seconds hence, but flight instruments are usually not invented by stock brokers, which is probably a good thing. This subtle difference is an indication of the immediate (well, almost immediate) time rate of altitude gains and losses. The static pressure is a relatively weak signal to start with, so the resolution of its short term variations can be an exercise in hairsplitting, particularly if we want both a quick response *and* a steady, trustworthy reading.

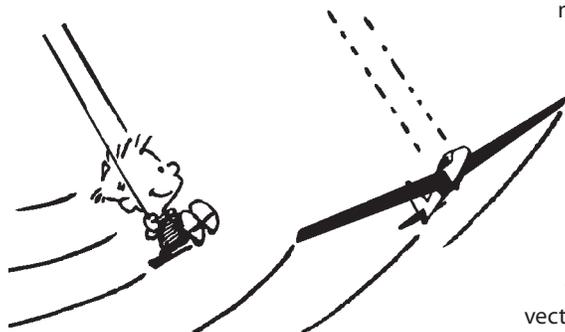
The best compromises between these two conflicting requirements are still leaving some of us with a certain sense of disappointment. After more than a half-century of refinement to variometer technology, this situation is a testimony to the level of the technical challenge.

In spite of all this, the uncompensated variometer is still a simple device when compared to the so-called "Total Energy compensated" variometer. What is that "compensation" about? It is about speed, or more specifically kinetic energy, which is proportional to the square of the speed. This particular compensation is necessary in order to obtain a variometer reading of what the vertical rate would be in the absence of maneuvering. We can create "stick thermals" (false indications of the variometer, as far as recognizing what the airmass is doing) by maneuvering, which trades off kinetic energy for height (potential energy). Unfortunately, it seems there is some stock broker still lurking in the background, because there is a fee which has to be paid for the transaction called "maneuvering drag".

There are several ways to illustrate the basic concept behind the total energy vario theory without dipping into the equation soup. Consider the analogy between a glider in a zooming maneuver and a child enjoying a ride on a swing (known by physicists as a pendulum). Of course they are talking about the same thing, and I am not sure which ones are having the most fun with it, which is not terribly important, since children and physicists can be hard to tell apart sometimes.

At the bottom of the arc, the speed is maximum (more kinetic energy) and the height is minimum (less potential energy). At either end of the arc, during the direction reversal, the speed is zero (no kinetic energy left) and the height is maximum (all the kinetic energy that was available at the bottom was converted into potential energy, the one that goes with height).

Why is there such a perfect trading between kinetic energy and height? Because of a simple geometric property of the pendulum — the length of the chain is constant,



therefore the suspended mass follows a circular trajectory. The tension of the chain can then be represented by a radial force vector, and the speed of the weight could be represented by a tangential velocity vector. Since the two are perpendicular to each other, the

work exerted by that force is zero, and no energy is received from the chain or given to it. (A pendulum made with a rubber band is more entertaining in several respects, which you can check by yourself if you are either a child, a physicist, or something in between, like a glider pilot for instance).

This means that the gains in kinetic energy exactly balance out the losses in height (and vice versa). This tells us that if we want a variometer to indicate the variation of the sum of the kinetic energy gains and the potential energy gains achieved by exploiting the offerings of an airmass, we need to subtract a measure of kinetic energy from the readings of the uncompensated vario and, *voilà!*, we have the prescription for the total energy variometer!

Luckily, this is not a difficult undertaking, at least in theory, since the dynamic pressure and the kinetic energy, both depending on the square of the velocity, are directly proportional to each other, so the pressure signal from the pitot tube is a good representation of the kinetic energy!

However, by connecting hoses, it is easier to add pressure signals than it is to subtract them! If we want to make a total energy instrument using some clever plumbing, we need a special pitot tube working in reverse, which is precisely what the so-called “total energy” probe is, since its opening is in the rear instead of the front. (You *could* use it as a pitot tube during a tail slide if you didn’t have more urgent matters to attend to at the time!)

For this wonderful scheme to work, just the right fraction of the dynamic pressure has to be subtracted from the time rate of the static pressure, before this delicately balanced double difference can be indicated. When it is done correctly (which is quite difficult because of many potential offenses to the simplicity principle), the “stick thermal” false indications are removed from the display, and only those energy gains attributable to the successful exploitation of the rising airmass are shown, hence the name “Total Energy”.

Unfortunately this familiar label is misleading in two ways. First there is the “Total” business: whatever the TE vario registers cannot *really* be total; it fails us if we pull Gs while maneuvering through a pocket of shear favourable to dynamic soaring. Then there is the unhappy use of the word “Energy”; what the TE vario displays is not energy (the altimeter comes closer to performing this function), it is something proportional to the time rate of energy over time (loss when descending, gain when climbing).

The time rate of energy is called “power”. For instance, we can easily figure out the basic glider power in the boring phases of the flight (pure gliding in dead air). We know that power is the product of the force and the speed (or the component of the force that is co-linear with the speed to be more rigorous), so we can figure out gliding power by multiplying the force of gravity (the glider’s weight) by the vertical speed with the right coefficients thrown in to get things right with the units.

If we do the math we find that a 1-26 flying at 450 lbs gross weight and losing altitude at 200 ft/min could be said to have a minus 2.73 HP power output. It consumes energy from a mighty power source, gravity, throttled down to 2.73 HP in that case. We already kind of knew that gliding was an exquisite method of falling, and now we can tell exactly how exquisite: minus 2.73 horsepower in the case of this 1-26!

The “Total Energy” variometer does reflect the power received from the atmosphere (or lost to it) by the glider most of the time, but not all the time. This should not be too surprising if we consider that the correct operation of the TE vario only requires an airmass which is essentially homogeneous, except for a pressure gradient in the vertical direction, the physical characteristic exploited by the altimeter (and the simple vario). No other pressure irregularity is taken into account in this atmospheric model, nor is the possible presence of velocity gradients (wind shear). Such an ideal and quiescent airmass would not be particularly attractive for soaring purposes anyway. It couldn’t even contain thermals, which necessarily entails shear in the vertical direction, so there must be something missing in the TE vario theory!

So caution is needed to avoid taking the “TE reading” at face value (at least by standard physics terminology). We could exercise such care by referring to the vario indication as “steady airmass power intake” instead of “Total Energy” to clearly tell it apart from the “inertial airmass power intake”, representing those “abnormal” (from the TE theory viewpoint) power imports obtained by maneuvering in an airmass to exploit dynamic soaring opportunities that birds like the albatross do so well. ⇒ p21

Internet adventures

Dave Puckrin, ESC

a current scam you should know about

HUGH MCCOLEMAN, the president of the Edmonton Soaring Club, decided it was time to sell his Libelle 201 — he is 91. He asked me to arrange for the C of A and do a little clean-up work on the airframe. (He also forced me to fly it, which was a devious ploy to remind me how nice it was and make me want to buy it. Don't trust an old guy with a friendly sly grin.) Hugh felt it might be just a tad more work than he could fit into his busy schedule.

My first choice was to see if we could keep the glider in the club. The glider was bought brand new back in the late 1960's and it has been in the club ever since. Almost every long-time member of ESC has owned a piece of it at one time or another. We also decided to advertise it in *free flight* — hey, it's free for members — but it turns out there is a price for everything.

I was working on getting a partnership of new owners together when I received the following e-mail — the names have been changed but not the spelling and syntax.

Hi, We are a procurement concern and we specialise in purchasing preowned goods on behalf of our clients worldwide. We however have an order for the above #113 CF-TQL, 1515h, fresh C of A, all Ads complete, enclosed trailer is offering to buy these for the sum of \$17,650.00.

Please We will arrange to remit payment for purchase to you. A prepaid shipper will come to your home for pick-up, Fred....

Darn, was my first thought, I want to keep the ship in the club. What I want doesn't count though, so I e-mailed the gentleman back. The offer was even \$150 more than we were asking.

Message received. We will be back in touch within 24 hours with a reply. Thank you for the offer. Dave

I phoned Hugh and said we had an offer and Hugh said sell. Now, I'm not from Missouri but I like to see the working end of the mule before I pay for the feed. Nobody buys an airplane sight unseen or offers more than asked without a bunch of questions: what is the condition? what instruments does it have? etc. I don't care if you are an international concern, I do expect to see a bit of due diligence.

Hugh and I agree it is a little bit fishy but the buyer will pay up front with a certified cheque before the glider leaves here.

My reply:

Thank you for the patience in the matter of the purchase of the glider CF-TQL. Is there any additional information that your client needs before we continue? Glider and trailer are sold as is where is. The price is acceptable at \$17,650.00 Canadian and the glider's C of A is about 60 days old. If a newer C of A is required I can make the arrangements. As far as I know all AD's are done as per Canadian requirements.

I await your reply as to how you wish to handle the transfer of funds etc. The glider is located 50 miles outside of Edmonton but it can be brought into town with short notice. It can be ready to ship within 24 hours of receiving funds in an acceptable manner. I will see that it is properly prepared for shipment. Please direct future e-mail to Dave@provenproducts.ca Dave, Proven Air

Fred's reply:

Hello Dave, Thanks for your mail to me with specifics as regard the glider cf-tql. Please my client has signified his intention to purchase and pay for the glider as it is, at the price of \$17,650 canadian. Payment for the glider will be through a certified company check drawn on a U.S. bank, which will be issued out on your name and sent over to your address. The payment will include shipping funds as well. Once check is received, it will be deposited/cashed so you can have your funds then, the overages will be sent over the the shipping company coming over to your location to pickup the glider.

Please will need to go to get back to me with your full name as it will appear on the check as well as your address where the payment will be mailed out to. I hope to hear from you shortly with this details, so that we can set the ball rolling as regard this transaction. Many thanks. Fred....

Things just don't go this way and I am suspicious; I telephone Tony at *free flight* and ask if he has heard of any scams of this nature. Surprise, there have been some sales scams, but off the top of his head he doesn't recall the details of how they work. Tony suggests that I play him along, then write an article for *free flight*. Now, not only is Hugh taking advantage of my good nature, some character overseas hopes I'm a patsy, and Tony is getting me to write about it. This world is turning out to be a real mean place for a little guy like me.

So now it is time to talk to the real Internet expert — my son. I got the Dad-you're-an-idiot look after I explained the situation. "First," he said, "the certified check is a fake. It will bounce in a month or two and by that time you will have paid the "shipper" to deliver the glider => p21

the 1-26 Travelling Trophy

Tim Wood, York Soaring

JULY 11 WAS A GOOD SOARING DAY in southern Ontario. In the vicinity of York Soaring's field at Arthur it had been hot, humid and hazy — the dog days of summer! Problems with my tow release mechanism and an epileptic fit by my Borgelt "Super vario" flight computer had caused me to abort an ambitious cross-country flight that I had planned for the day. I was very disappointed and despondent at the prospect of missing out on a flyable soaring day in mid-summer conditions.

I parked my ASW-27 and cast my eyes over the available club ships; I saw CF-OEI, the venerable 1-26 that nobody wanted to fly that afternoon. Maybe it was time to take a shot at retrieving the *1-26 Travelling Trophy* from SOSA! After all, it was only 61 kilometres away and there was a decent tailwind of 5–10 knots out of the north. No planning went into this flight; it was 100% impulse. As I strapped in, Norman Perfect, our field manager asked me, "Have you checked if SOSA is operating today? Have you checked whether anyone will be there to witness your arrival? Have you organized a retrieval crew?" I had to answer in the negative, but I had set my mind on going and the clock was ticking. It was

already after 1 pm. "Don't bother me with details Norm, it will all work out."

The start was tricky as not all the cu had useable thermals. In a 1-26, you can't just move on too many times to try another thermal before its time to meet another farmer. I soon found the best lift zone to be 4500–6300 feet and stuck to it. I did not let myself go below 4500 come hell or high water. The tailwind was a great help. My first decent thermal was over a lumber yard just south of Fergus. Once I reached Guelph, there was a super thermal over a quarry right in town. This spawned a cloud street

that transported me magically south. I was able to do a straight in glide to SOSA from Reid's Field, arriving over the club house at 4000 feet.

I was soon on the ground at SOSA, and I stepped out of OEI onto the runway. The grass on the runway was frazzled to a golden brown by the heat and lack of rain. A skeleton crew of three at the field, just enough to man the operation. With due ceremony I announced to Roy

Auwaerter and Mike Tryggvasson where I had come from and formally claimed the trophy for York. They were civil about it, in fact downright hospitable! In the friendly rivalry between the two clubs, the York 1-26 Travelling Trophy has changed hands numerous times. The requirement for a valid claim to possess this trophy is to fly to the club where the trophy is residing in a 1-26 or other glider of similar performance. Paperwork documenting the details of each successful arrival is recorded and retained in the base of the trophy. These documentation formalities were very efficiently completed by my hosts as I took a cold soft drink in the SOSA clubhouse. The

trophy fits into a custom carrying case that fits neatly into the 1-26 behind the pilot's backrest for the journey home.

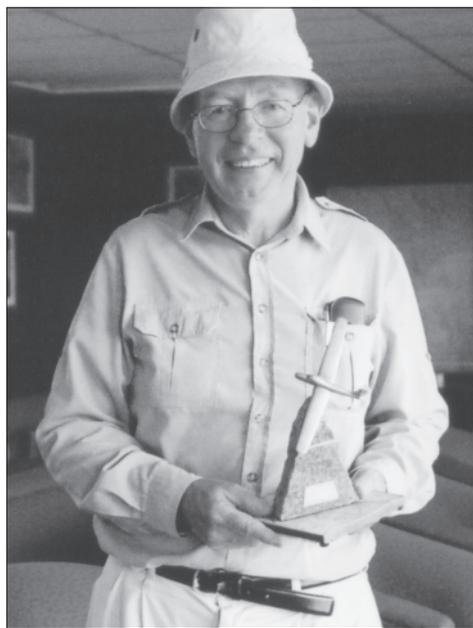
I decided to try to fly back to Arthur as convection had been

"Don't bother me with details Norm, it will all work out."

so strong around Guelph on the way down. I was optimistic about reconnecting. I took a high tow so as to be sure to connect with the best band of lift and maximize my chances of making it home. My decision to re-launch rather than wait at SOSA for a retrieve was partly influenced by the unbearable ground temperature that had by now reached 35C. The humidex was around 47C and both Toronto and Hamilton had heat, humidity and pollution alerts in effect. I couldn't wait to get back into the relative cool of several thousand feet above ground.

Alas, conditions had become weaker during my time on the ground and I was soon struggling. I crossed the 401 but failed to get any useable lift over the quarries south of Guelph. Inexorably, I got closer to the ground, and then decision time came. I picked a fine stubble field at Aberfoyle, sloping up gently towards the south with a good approach over the Puslinch County Fire Hall. After a good safe landing I walked to a nearby house to call my club for a retrieve.

When I got back at the glider after making the call, I was greeted by a 4-wheel ATV speeding towards me across the field. This was Farmer #1 in a state of great excitement. I calmed him down, explaining that this was an unscheduled off-field landing not a crash. I was just settled down in the shade of the wing of my 1-26 to eat the rest of my lunch when the Fire Chief arrived. Grateful for the chance to sit in his air-conditioned truck, I explained to him, "no damage, no injury, we do this all the time, it's just an unscheduled landing." He was relieved, and I suspect a little disappointed that a real live emergency was slipping from his grasp. He had been visited minutes earlier by Farmer #2 who, in great alarm, had reported that he, personally, first hand, with his own eyes, had witnessed an airplane crash. The OPP arrived next and I explained once again about it not being a crash. Meanwhile the Fire Chief called off the CFB Trenton Hercules and the → p20



What's an OSTIV?

Dan Cook, FT&S committee

WELL, its French for Organisation Scientifique et Technique Internationale du Vol à Voile, an affiliate member of the FAI (see www.ostiv.fai.org). That being said, most of us may be more familiar with efforts made by the OSTIV Sailplane Development Panel (SDP) which has helped to establish glider design parameters for JAR-22 which all glider manufacturers follow. There is also a Training and Safety Panel (TSP) and the less well known Meteorological Panel. The TSP meets about every two years to exchange training and safety information, develop standards, practices, and techniques, and to achieve common understanding towards solutions to make gliding safer internationally. The TSP also meets occasionally with the SDP to provide information from the trainer's perspective to the designers to identify issues before they are incorporated into a new glider. In addition, SAC's own Ian Oldaker was elected as chairman of OSTIV's Training and Safety Panel and leads the panel's efforts.

From a Canadian perspective, our Flight Training & Safety committee exchanges ideas for improvements to our documentation and programs with other nations before implementation. This includes the opportunity to flight test new safety ideas and techniques with some of the top glider instructors and safety managers from Europe.

This summer, panel members reviewed national accident/safety presentations with a view to identifying common safety factors that occur in fatalities. The consensus was that mid-air collisions, low level stall/spin accidents, and human factors involving "judgement" were the three key areas for the TSP to focus on. Various delegates gave their proposed national approaches for dealing with these issues.

The highlights of some of these presentations included safety programs that focussed on safety seminars explaining *see and avoid* techniques and stall/spin avoidance techniques — particularly on winch launches which are used much more extensively in Europe. (There are 800,000 to a million launches a year in Germany, for example).

The BGA presentations used in the UK reviewed the human visual system, threat, mechanisms of visual perception, airmanship and techniques of collision avoidance (scan techniques and scenarios where see-and-avoid is limited). Some conclusions included the fact that it may take up to eight seconds to see an aircraft and do something about it to avoid a collision. The areas where most midairs occur are

along ridges, joining a thermal, in the circuit, and along cloud streets. Examples were shown how two aircraft may not be able to see each other and collide because of blind spots/approach angles.

Other presentations from Switzerland and Germany included a GPS-based FLARM (Flight Alarm) system (info at www.flarm.com) or www.allround.de/projekte/beklas/praes/frame.htm). A glider's position is transmitted by a low power transmitter to other FLARM users within a few kilometres and displays the glider's proximity to the receiver. An alarm warns the pilot of potential flight path conflicts. Most gliders flying in the mountains in Austria, Switzerland, and Germany are now equipped with these

low cost units (500 euros). The system can also be programmed with obstacle coordinates. The USA is working on ADSB, a transponder-based system for general aviation but its cost is currently high (US\$8000). Some lower cost transponder receivers are only available in the USA. Panel members used the FLARM in test flights and it worked well. The size of a cigarette pack, it is an affordable option for use in areas of high-density gliding activity. See other photos of the cockpit installations on the website.



Stall/spin prevention measures were reviewed, particularly for the winch launch. Models were

used to show that many pilots have been able to extract a few extra (~100) feet on an average launch but at what cost? Pulling back on the stick in the first few hundred feet of a launch increases the rate of rotation and drastically reduces stall warning and reaction time to zero, so that a pilot will have great difficulty in avoiding a wing drop. For most gliders a *natural rotation* with the control stick more centred was recommended.

There was also discussion on low turns leading to many fatalities in many countries. Part of the problem stems from the fact that the classic symptoms to the stall are very subtle in the over-ruddered low turn and the pilot may not recognize them; the subsequent stall/spin onset can be very quick. Emphasis on scenario-based spin avoidance training to include recognition of hazardous situations, including recovery training before and after stall/spin, was the only practical solution. Aircraft manufacturers have designed some trainers, such as the popular ASK-21, to make them less "spinnable". However, it is felt by the TSP that tail weighting should be used in

such sailplanes when they are used for spin training in order to make their spin characteristics similar to many of the single seaters that will remain on the market for many more years.

A German delegate gave a technical presentation on how a two-seat trainer's weight and balance is effected when the instructor leaves the back seat for the student's first solo. The stick forces and control travel will be dramatically reduced between normal flight conditions and the stall attitudes. Often this condition is first observed when the student has PIO problems on their first solo. This situation and its potential for stall/spin departures can be avoided by adding extra ballast under the student to get the CG closer to the dual flight position.

On the practical side, flights were done with members to review how spin training in the ASK-21 is conducted with tail weights. Launching with an electric winch was demonstrated and practised. Acceleration to 100 km/h in about three seconds on a nylon line was an eye-opener. The electric winch's computer and motor maintains a

constant pulling force that eliminates speed control problems associated with the operation of internal combustion powered winches. This is a good launch vehicle in locales where noise sensitivity is an issue. Delegates also reviewed aerotowing techniques using a motorglider as a tug. This has proved to be a viable practical option for many clubs. Test flights were also conducted for type conversion on the new DG-1000 turbo, Duo Discus turbo and self-launching ASK-21 (rotary engine).

Other areas of work in the TSP includes work on a Human Factors Analysis Classification System to re-examine accident data. The different ways one classifies accident data can lead to new conclusions. TSP is also working with SDP on training safety recommendations for parachute recovery systems, stall warning systems and cockpit damage reporting for cockpit design analysis. TSP future work will include a method of international alerting for safety issues, development of standards, training techniques, safety posters, and publishing of TSP documents and papers on our own website location to get wider distribution to interested parties. The TSP aim is

to improve safety and training through international cooperation. If you have an interest in the TSP you can approach any FT&S member to get more information or have input into this forum. ■

Ian Oldaker (left) with Jannes Neumann from Germany. They are preparing to fly one of the ASK-21's at Bad Pyrmont. Jannes designed the tail-weight system for this aircraft to permit its use as a basic trainer to include spins which it does very well and predictably with the weights — it will not spin without this added tail ballast. They compared national teaching methods for spins and other exercises. Another purpose of these flights was to evaluate the FLARM system. One of the gliders had a panel-mounted unit which was a very neat installation.

When flying in close proximity to another glider having FLARM, the unit clearly showed the other glider's position and relative height. An audible alarm only sounded when a collision course was being predicted, drawing the pilot's attention to the situation. Ian and Dan judged that these units would be a good safety investment for busy gliding clubs as well as for busy ridge flying routes. The units were mandatory for the 2005 German nationals.

Dan, in front seat, is about to fly with Walter Müller in his Duo Discus Turbo. They were also evaluating the FLARM unit as well as other maneuvers. Dan and Ian also took a careful look at the dive brakes on this glider, which were much improved over earlier models, permitting steep and well-controlled approaches.



Chinook Arch at fall Cowley camp



Tony Burton, Cu Nim

AN EXCELLENT EXAMPLE of a great Chinook Arch occurred on Thursday, October 6. The panorama photos were taken by Phil Stade.

Phil said, "The photo on the right was taken at about 2 pm, in the early part of the climb in the wave, from about ten kilometres north of the Cowley airfield looking northwest toward the Oldman River Gap. The altitude was 14,400 feet."

"I took the photo of the Arch above about an hour later at an altitude of 24,000 feet from about twelve kilometres northwest of the first photo. I then descended to about 22,000 while heading directly east toward the Arch. On arriving, I found 3–4 knot lift that continued through to 27,000. The lift then strengthened to 3–5 knots. The Arch continued well above me and it would have been a good day to go for a record. The sun was warm; I didn't need a hat or gloves even at 27,800.

The leading edge of this Arch was significantly downwind from the mountains, being positioned back over the Porcupine Hills where tertiary lee wave usually resides. This position is indicative of high upper winds though the forecast didn't indicate such. The underlying secondary lenticular seen in the photo is also further east than normal."

The nine day camp this year was quite small with at most a dozen pilots on hand on any given day. Most of the pilots came from Cu Nim, with Mel Blackburn and Martin Jones from the Canadian Rockies club, plus Regina regulars Mark Westphal and Orlan Dowdeswell, who fly a DG-400. Another Regina newcomer to Cowley, Martin Argerami, got his Diamond climb in Regina's club Jantar in the fine Thursday wave. A few more got flights to the 28,000 foot limit





we set for the block, but several pilots stated that the cloudscape was so pretty they didn't bother for maximum height but stayed lower down in 20s just to enjoy the magnificent view.

The camp started badly; after the Saturday move of equipment, the conditions on Sunday and Monday turned cold and ugly, with rain and then the first real snowfall of the season leaving the tie-down line looking like the above on Tuesday morning, 4 October. A quick warm-up followed with another day's delay to get the airfield dried out sufficiently, then the wave soaring was on.

Towards the end of the week the upper winds relaxed and it got blue but a little convective. The wave diminished and there were some ridge assisted thermals behind the airfield on the Porcupine Hill slopes by mid-afternoon up to 8-9000 feet. I was able to circle a few times with a bald eagle; that was definitely cool.

Ahh, you should have been there. ■



When you can fly – who needs driving!

“Barely old enough to drive,” most people would think. What’s a young face doing in the only seat of a glider ready for takeoff. As the towplane in front starts its engine it becomes clear this 16-year-old is going to fly without an engine.

FOR MANY YEARS, the Schweizers hosted an annual week-long soaring program for the top Air Cadets in Canada but this ended it after Sikorsky bought their company. Last year there was no program. The Air Cadet League approached SAC for assistance, so Jim McCollum pointed them in the direction of the Ottawa-area clubs. One of the program leaders had been a former member of GGC and the link was made.

Ian Grant, CFI of the Gatineau Gliding Club said, “We were very pleased to make a proposal to offer the top gliding students the additional training needed.” Given the success of this year’s trial effort, GGC and the Air Cadets have agreed that we will repeat it next year.

The event went safely and met its objectives but it was hard work for key club members (instructors and tow pilots, and especially Ian as leader). The small group meant the cadets could be properly checked out and supervised which was a definite plus. It would have been difficult to handle a bigger group adequately.



The cadets seemed pretty pleased with getting to fly with the Canadian Champion!

Major Allan Wardle, national cadet Air Operations Officer said, “We’ve took the top graduates from our five schools across the country and brought them to Gatineau Gliding Club for some extra glider training. Normally they don’t get any soaring on the regular course, but as top prize they get extra flying.”

David Vresk, Frederick Letourneau, Brad Rouleau, Kate Searle, and Luc Hamel, ages 16 to 17, made up this year’s group of the top five glider pilots from the Royal Canadian Air Cadets. The Cadets were selected based on

overall marks, volunteer work, and personality. The five schools are located in British Columbia, Alberta, Ontario, Quebec, and New Brunswick.

“In regular flight training we don’t get a chance to soar as much, there’s more of an emphasis to keep the operation going,” says David Brett, an air cadet graduate from Hamilton, Ontario. “Here you can stay up as long as you want – it’s fun.”

Maj. Wardle says, “Because they are the best, they’ll probably become flight instructors in the next few years. We need that in the program since it’s self-generating. If we don’t have instructors then the program falls apart.”

Many members of Gatineau Gliding Club who were involved in arranging the training were previously cadets. Volunteer members keep the operation running by providing crew for groundwork and flying a towplane.

The training includes briefings, lectures, in flight training, and provision of three gliders for flying, all taught by Ian and deputy Wolfgang Weichert.

“You learn how to be a proficient glider pilot, you learn the theory and all sorts of interesting things,” says Luc Hamel of Calgary, Alberta. “They take you out and actually physically show you how to handle the glider. How to take off safely, do your flying, and land again.”

... Not always in the same place though, as Ian relates. “One day Frederic Letourneau landed out one day in the 1-26. It was a classic 1-26 error. Everyone was trying to stay up in weak conditions and Frederic especially was going round and round in circles, oblivious to the fact that he was drifting downwind. The fact that good old CF-ZDD had a zero error of about +1 knot on the vario didn’t help, since it let Frederic think he was climbing when in fact he wasn’t. When he realized eventually that he was too far away to make it home safely, he did the right thing and chose a safe landing in a meadow two or three kilometres to the northeast of the field.

A long evening ensued as the ground crew had to disassemble the glider and bring it back in two trips using the club’s K-13 trailer, since the 1-26 trailer was unserviceable. Frederic’s adventure led to some good natured ribbing and some useful lessons learned at the daily briefing the following morning.”

“It’s been an excellent experience for the members of Gatineau and the cadets,” says Ian. “I hope they’re going to benefit from the experience, and that we’ll see a new group of talented young pilots next year.” ■

the Major and the Minister

Charles Petersen, York Soaring

IN 2000, I WAS ON A CROSS-COUNTRY flight across the flat Dundalk highlands of southern Ontario, and expecting lift to improve over the afternoon, I had elected to go downwind for the first leg. I dropped off the edge of the plateau, but the wind picked up until upwind progress became impossible, and I finally realized that I wasn't going to make it home, let alone complete my task.

So it became a decision of where to land and get a retrieve. Just north of me was CFB Borden with its partially decommissioned airfield. I observed the signature-yellow 2-33's flown by the Air Cadets operating, and realized this was the weekend the military were to 'convert' the cadets that I had helped instruct to licence only a few weeks before. The base was just off the edge of my sectional, so I didn't have their frequency, and they didn't respond on 121.5. I lingered over a sand quarry long enough to observe the flight operation, and then flew a NORDO circuit and landed on an out-of-use runway. The kids rushed up asking to sit in the glider, see the flight computer, try on the parachute, etc.

Shortly thereafter a Major, who shall go nameless, arrived in his best ramrod-straight parade ground manner, introduced himself and demanded my identification and registration. The very soul of hospitality, he was. I handed him a business card and pointed out that the registration was painted on the aircraft. Didn't I know this was a closed airport? he demanded.

"Yes," I replied, "that's general knowledge."

"Well," he said, "you need advance permission to land here, and that permission must be obtained 24 hours in advance."

"Major," I replied, "I just made a forced landing, I don't need anyone's advance permission to do so."

"But you didn't call in for clearance," he replied. I explained that the base was off my chart and I had tried 121.5.

"You are required to carry the Canadian Flight Supplement; you could have looked it up."

"I believe, Major, that I'm required to carry a *current* copy of the CFS *if* I carry one, but not to carry one *per se*," I replied, inviting him to observe the limited baggage area and its inaccessibility.

Then he played his best card, abandoning his poker face for the smile of victory.

"Fine, but how are you going to get your glider out of here?" I suggested that as he had not offered me a tow, mentioning that it is a reciprocal courtesy among gliding operations, that I could call my club to send a tug.

"That aircraft won't be making a forced landing — he will need permission," he replied.

"Well, who gives such permission?" I asked.

"I used to, but I don't any longer," was his response.

"Well, who else is authorized to grant permission?"

"He's not on the base," he responded, quite pleased with himself.

"Fine," I replied, "I'll have my partner bring the trailer."

"He'll need permission to bring the trailer on the field," he said.

"Okay, who gives that permission?" I asked, sensing this was going to be difficult.

"You'll have to go right up the chain of command, all the way to the top in Ottawa," he all but crowed.

"How about the Minister of National Defence?" I asked.

"He'll do very well," was his answer.

"Should I call him on such a small thing?"

"Go ahead," he replied.

"You're sure?" I asked.

"Yes, call him."

Now by extraordinary coincidence, I had known the Minister, Art Eggleton, for many years; he was at my wedding, and we occasionally eat at each other's homes. Even better, I had his cell number on my speed dial!

The major listened as I called and left a voice mail message explaining that I had made a forced landing and that Major *** had instructed me to call him for permission to retrieve my glider, and requested that he detail someone to call the Major and authorize him to release the glider. Sure that I was bluffing, he marched away.

... I guess he then talked to the cadets, and they boasted about the newspaper colour photo that had been published a few weeks earlier, with them clustered around the Minister sitting in a glider, and explained that I had driven the Minister to the field for the presentation of their licences, that was when the light bulb went on.

He approached again with a much friendlier demeanour. "You know, I was trying to be your friend back there."

"Really? I thought you were trying to be a jerk."

"Well, you threatened me; you called the Minister ..."

I reminded him that I had three times verified he wanted me to call, whereupon he said he had 'decided to go out on a limb and release your plane'. And so I got an aero-retrieve from one of York's tugs.

I should mention in defence of the military that one of the major's colleagues, a Captain Shantz, was, by contrast, the very soul of hospitality, offering me a telephone, washroom, cold drinks, and an inspection of the immaculately maintained 2-33's, while apologizing for the hassle. And so I left a second message for the Minister, and had one of the cadets run my wing for the launch. ■

Vernon airspace – a good meeting with users

Silver Star Soaring had an interesting and productive meeting on 12 October on heavy metal collision avoidance. In the last two years the club has had some WestJet traffic pass close to gliders in the Vernon area Class E airspace where one airliner had taken an evasive turn to avoid conflict.

“See and avoid” has been working but many glider pilots, including WestJet crews, have been less than comfortable. E-mail concerns were shared with WestJet, NavCan, and Transport Canada. A “fact-finding” meeting was held by NavCan at the Kelowna Tower to identify and recommend solutions.

Silver Star Soaring members were CFI Nelson Pigeau, Mike Erwin, Karl Soellig and Dan Cook. NavCan representatives were chairman Paul England and Safety Officer Lana Graham; Kelowna Tower Supervisor was Ron Ruck; Kamloops Flight Information Centre (FIC) reps were Kathryn Gamble and John Dares; TC was represented by Regional Safety Officer Gerry Binema, Flight Training John Mrazek and WestJet by Dispatch Technical Advisor Iain Box and Chief Pilot Paul Ysselmuiden.

We learned that WestJet is flying new approach profiles into Kelowna which is bringing them into areas where we glide and not on the usual IFR approach routes/fixes. These approaches use the valleys for lower terrain clearance and better controlled descent approach paths. WestJet gave us paper and electronic copies of the approach plates that are custom designed for the airline. They will also provide the club with some of the GPS waypoints to program our flight computers with their routes. Additional actions include:

- NavCan Kelowna tower supervisor wants the club to continue to use ATIS to report Vernon gliding activity.
- NavCan is now responsible for NOTAMS and do not want to issue NOTAMS on activity already indicated on charts or Flight Supplement. They have issued a new NOTAM procedure manual. There are FIRs (IFR NOTAMS) in which they would consider placing glider activity that may conflict with IFR traffic. They want the club to use the NavCan FIC in Kamloops for the club to get gliding weather, NOTAMS, etc.
- WestJet Operations will put the club flying activity into their pilot flight plans when the club calls them to state we are flying. They will also give a safety brief on the gliding situation at Vernon to their pilots. They expect that the club will brief our

pilots about their new approaches. The club will also brief other airport aviation clubs on the information provided.

- WestJet will put a Silver Star club member on their automated schedule and ETA message service to update the club for weekend activity of Vernon overflights.
- WestJet will also make a blind transmission to Vernon traffic on Unicom 122.8 MHz before they overfly the Vernon/Silver Star area on weekends and this will help alert other airspace users. The gliding club is not the only aviation sports user at Vernon — parachuting, hang gliding, parasailing, ultralights, and general aviation are active.
- The club will continue to notify Vancouver Centre via land line of gliding activity as it occurs so NavCan Area Controllers can advise other IFR traffic routed through the Vernon area (anticipated altitude of gliding activity and general duration). The club will estimate the anticipated cloudbase expected for that day and use our anticipated hours of operation.
- The towplane will continue to squawk and contact Vancouver Centre when altitude/time permits.

Conclusion The meeting, centred on flight safety, was very productive. Everyone wanted workable solutions and all parties were satisfied with the arrangements. The NavCan chairman was open and helpful to resolve everyone’s concerns. WestJet and TC asked about development of low-powered GPS based transponder frequency transmitter for gliders and other airspace users as a better solution for TCAS. Many gliding organizations including OSTIV are working on this but no workable and affordable solution is currently available. In the meantime, these types of cooperative arrangements will go a long way to improving local flight safety.

Dan Cook
Silver Star Soaring

On personal flight standards

The following is an excerpt from Tom Knauff’s online newsletter available at www.eglider.org

Here is a letter I recently received regarding one’s personal flight safety standards:

“I think that some of the issues raised in your newsletters touch on the fact we need to put a higher burden on ourselves to ensure we get the most out of our sport and fly safely. As pilots we need to bluntly evaluate our skills (and lack thereof) and develop a continuing

training plan. Many professions require ongoing education to ensure they are prepared to do their job — why not us? We all need to answer the hard questions: where are my skills today, how many hours do I need to fly to stay current (where the answer is not some generic number but how many hours do you need to stay current), and how do I fix my knowledge and/or skill gaps? The FAA rules give the minimum requirements — not necessarily the correct ones.

I firmly believe that this can be a safe sport, but it’s in our own hands to make it that way. One of the reasons I traveled all the way to Pennsylvania to get training from you was that in my research you held your instructors and your students to a higher standard (certainly higher than the ones I saw at my local club) and that made it important to me. Higher standards make better, safer pilots — status quo does not.”

Thanks to the writer for the kind comments. Yes, the bottom line is that each of us is responsible for the knowledge and skills necessary for safe flying. It is interesting to me how otherwise intelligent people will allow themselves to participate in, without the necessary training, skills or knowledge, what has proven to be one of our most dangerous activities.

There is good information out there, and it is easy to obtain. It is not rocket science. In fact, it is reasonably simple. Yes, there is also misinformation and lots of “stinkin-thinkin”; however, it is not difficult to separate myth from facts.

My recent newsletters spoke about the failure of average pilots to have even the most basic knowledge about what they are doing. Until pilots make the effort to educate themselves and develop basic flying skills, the accidents will continue. No organization — not the FAA, not the SSA, not anyone — can make a difference unless the individual pilot takes it upon themselves to perform to a higher minimum standard.

There are places where flight safety is a way of life. Our gliderport is one of many who receive accolades for the efforts we make towards a safe operation and school. Our standards are no higher than what is implied by the FAA, and in many ways are dictated by a legal system that will punish us for failing to conduct our flight operations and training to that standard.

Someone could make up a pilot profile that would indicate those at risk. The profile might include where they fly, how often they fly, the kind of aircraft they fly, and the skills and knowledge necessary to fly in the environment they fly in. For instance, the skills/

knowledge for a person who only flies at one airport in calm conditions would be different than that of a pilot who flies in challenging conditions/places. We all know pilots who tow to 2000 feet and gently glide back to earth, never flying cross-country (nothing wrong with that). On the other hand, flying cross-country in the French Alps is extremely demanding. (The Alps have one of the highest incidents of fatal glider accidents.)

If you had to write a set of test safety questions, what would you ask? One question might be, "how much is the effective length of a farm field reduced by an obstruction (say, trees) at the approach end of the field?"

- Three times the obstruction height?
- Five times?
- Ten times?
- Twenty times?

We can agree that knowing the answer would be important for a pilot who flies cross-country. What questions would you ask?

Winter is coming to the northern hemisphere. Build a fire and re-read the soaring textbooks you have on your shelf. Remember, if you are truly serious about maintaining your personal level of flight safety, you must be aware of your own limitations and fly with them firmly in mind.

Tom Knauff

Teaching spin recognition, avoidance and recovery

From the 2001 Soaring Instructor's Manual (unchanged for the latest edition in 2003).

... Unfortunately the case for teaching recognition of the symptoms alone has one serious weakness — in most cases of truly accidental

spins, there is *no* warning that anything untoward is about to occur. This might seem strange, but the evidence is in that a glider can be made to do a fully-developed spin quite easily without any of the traditional warning symptoms being present. Therefore it is essential that the student be taught the full spin, and the conditions which can and do lead a glider into spinning.

Later, in the section on spinning, the 2001 manual says:

... Typically, inadvertent spins can arise in several situations:

- While thermalling too slowly, possibly in turbulent air,
- While attempting an over-ruddered turn at too slow an airspeed at low altitude while trying to stretch a glide onto final approach,
- While tightening the turn onto final having flown beyond the runway centre line, or similarly tightening a turn in a thermal without adequate airspeed, and
- A launch failure, when following a winch-launch cable break or a towrope break and with the speed still too low, the pilot attempts a low-level turn.

These situations are examined in more detail below but before we do so it must be stated:

"Nobody spins a glider accidentally from a nose-high attitude."

This last piece was revised in the current manual to say:

... There are several situations that can lead to a glider spinning, and these depend on such factors as the glider's characteristics and the degree of mishandling by the pilot.

Typically, inadvertent spins can arise from several situations:

- While tightening the turn onto final having flown beyond the runway centreline (the "pear" turn), or similarly tightening a turn in a thermal with inadequate airspeed, the glider spins;
- While flying too slowly, possibly in turbulent air, when misuse of the rudder at the stall causes a spin;
- While attempting an over-ruddered turn at too slow an airspeed at low heights while trying to stretch a glide onto the final approach, the glider spins;
- With a launch failure following a winch launch cable break or a towrope break and with the airspeed still too low, the pilot attempts a low-level turn. Very few pilots recover from an inadvertent low-level spin.

Stall/Spin recognition and avoidance is the main aim of these exercises.

If you as an instructor have not spun a glider from each of the above situations, try practising these at the next opportunity.

Of course we train students to do these things at altitude, and the exercises have been devised to do just this for each of these situations. I could mention also pulling up into a thermal and rolling into the turn with inadequate airspeed, similar to the top of a chandelle — this maneuver is often done at low heights and has killed the occasional pilot. So go on up to a safe height and do these with someone who has already developed the spin avoidance and recovery skills, and respect the 2000 foot agl limit for recovery to be completed.

Ian Oldaker,
chairman FT&S committee



Great club and cross-country ship
Type approved in Canada
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Miscellany

New Zealand GRAND PRIX soaring

New Zealand will host the first of the FAI's national Grand Prix events in 2006. These events, planned to be held worldwide, will qualify top-ranked pilots for the second World Sailplane Grand Prix in 2007. The New Zealand Gliding Grand Prix will take place in Omarama 21-29 January 2006.

New Zealand's bid for Omarama in 2006 was supported by the IGC because it offers tremendous gliding opportunities amongst a dramatic landscape with few, if any, airspace restrictions relative to the scale of this event. The IGC Bureau also supported Omarama as a site as there is existing infrastructure in place that will provide the critical support required to run a successful event.

An invitation-only event, the New Zealand Grand Prix will feature the world's top pilots, including New Zealanders John Coutts, the current world champion, and Terry Delore, distance soaring record holder. Respected mountain soaring instructor, Gavin Wills, will set the tasks, with New Zealand's spectacular alpine scenery providing an additional element of excitement.

The New Zealand Grand Prix aims to change the face of competitive gliding by making it a compulsive spectator sport using next generation TV technology from Animation Research, of America's Cup fame, and a giant outdoor screen. A new type of stabilized helicopter camera system will also be used to send live pictures back to the airfield. Work is already well underway to secure international media coverage and attract 10-15,000 spectators to watch the event live from Omarama over the three public days of the event from 27-29 January.

"Our goal for the New Zealand Gliding Grand Prix is to create an exciting new spectator sport, heightening public awareness of the extraordinary skill and daring these elite pilots show," said competition organizer, Peter Newport. "The recent Worlds in France proved the new Grand Prix rules work, producing a safe, fast and exciting event the pilots all enjoyed. The tight, dramatic finishes of the races are exactly what gliding needs if it is to become a spectator and mass media sport."

Internationally-renowned soaring conditions and fast, demanding racing from the world's best pilots, combined with interaction from thousands of spectators, will ensure the New Zealand Gliding Grand Prix is the first in an exciting new generation of gliding competitions. Spectators will also enjoy a wealth of on-ground activities as well as other aerial entertainment. Information available from <www.gp06.com>.



the hat came back

During our last fly week at London Soaring, we had John Bowden come out to help with the launching of gliders. Relatively new to this sport, John tries his best learning the safety signals and running wing tips.

One particular day, John was running the wing of the L-13 Blanik and to my surprise, I see that he is sprinting as he holds the wing-tip of KPA. Pretty soon he is in a full running race with the towplane and the L-13.

Puzzled, needless to say, I asked John why he was in a foot race with KPA. Sadly, he told me his dilemma regarding his Tilly hat and how the L-13 wing tip stole it from his hands.

John was in the Canadian Armed Forces stationed in Somalia and all the service men normally wore black berets. In a country with very hot weather conditions, that's hardly the proper head gear. All service men got a Tilly hat in place of their regular issue. John was very comfortable with his Tilly until a camel ate it off his head. Trying to wrestle the hat

out of the camel's mouth resulted in a good bite and still no Tilly. He was issued a replacement, the one which decided to go for the glider ride on the end of a wing tip.

John's face expressed great sorrow; he had now lost the hat that carried memories back with him to Canada. To add insult to injury, he told me that his London Soaring glider pin was also on his Tilly. I tried to reassure him that his hat may stay with the L-13, but he was sure it was lost forever.

We both waited over an hour while watching the L-13 climbing to over 4000 agl. Eyes straining, we followed the L-13 through the circuit, then it softly landed and rolled up to the hangar. To John's amazement, there on the wing tip of the L-13 hung his hat by the chin strap.

John was elated – his hat came back! Arriving home that night he told his wife about his Tilly. The next day John showed me the head band of his hat with the numbers 4000 feet on it. He then explained that his wife, having added this new memory to the headband, said, "John, your hat has been higher than you have!"

Cal Gillett

FAI Centenary soaring results

Two "gliding weeks" were held to contribute to the celebration of the FAI's Centenary this year. The aim of these two-week periods (one northern hemisphere and one southern) was to record the total number of kilometres flown by all glider pilots during the nominated days. The German OLC website and the French Net-Coupe were used to log and record the flights.

The total distance flown was an astounding 2,511,421 km, achieved with 5224 flights, a distance equivalent to 62-1/2 times around the Earth! Diplomas will be awarded to the best flight in each FAI class.

The world total for the whole year is an amazing 17,384,977.37 km over 58,803 flights!

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OLC – 2005 Canadian Decentralized National Contest results

Overall Winners (OLC National Champion)

<i>Motorglider</i>		<i>Points</i>
1. Wilfried Krueger		4488
2. Hans Binder		4063
3. Allan Spurgeon		3256
<i>Glider</i>		
1. Dave Springford		3053
2. Jerzy Szemplinski		2822
3. Jörg Stieber		2769
<i>Novice</i>		
1. Keith Watson		1877
2. Alain Thirion		1491
3. Gabriel Duford		1271
<i>Juniors</i>		
1. Chris Razl		1133
2. Jeremy Sawyer		881
3. Jay Allardyce		705
<i>Seniors Motorglider</i>		
1. Wilfried Krueger		4488
2. Hans Binder		4063
3. Richard Mamini		2779
<i>Seniors Glider</i>		
1. Walter Weir		2490
2. Tim Wood		2268

3. Marian Nowak	2186
<i>Clubs</i>	
1. Canadian Rockies Soaring	87,457
2. York Soaring Association	47,840
3. Montreal Soaring Council	39,285

2. Tim Wood	2268
3. Wolfgang Thiele	2179
<i>Glider</i>	
1. Bob Lepp	2545
2. Tim Wood	2268
3. Ric Willems	2156

Regional Winners - BC/Alberta

<i>Motorglider</i>	
1. Hans Binder	4063
2. Allan Spurgeon	3256
3. Vaughan Allan	3124

<i>Glider</i>	
1. Joerg Stieber	2486
2. Dave Springford	2460
3. Martin Jones	2180

Saskatchewan/Manitoba

<i>Motorglider</i>	
1. Orlan Dowdeswell	1129
2. Mark Westphal	920
3. Matt Chislett	781

<i>Glider</i>	
1. Matt Chislett	781
2. Glen Buhr	530
3. Roy Eichendorf	447

Ontario/Quebec

<i>Motorglider</i>	
1. Bob Lepp	2545

Maritimes

1. Larry Bogan	347
----------------	-----

Note : The winner for motorglider and glider categories is identical for the Novice and Juniors category and for the Maritimes.

Did you know?

Did you know that FAI once published compensation rates for damage caused by "aeronautes" to potatoes and asparagus?

Did you know that in 1910, three quarters of the 400 aeroplane pilots licensed world-wide were French?

No? Then you need to read *High Flyers*, the book on the 100 year history of sport aviation and the FAI! Find more information at <www.fai.org/centenary/highflyers>.

CURRENT CANADIAN RECORDS (as of 8 Nov 2005)

C indicates a record by a Canadian citizen originating outside the country.
T indicates the corresponding record set within Canada. (These are noted only when a greater "C" record exists.)

RECORD TYPE	OPEN	CLUB	MULTIPLACE	FEMININE
DISTANCE (km)				
3.1.4a Free distance	Marsden/Apps 1093.0 1984	Mike Glatiotis 480.6 2002	Chester Zwarych (R Adam) 495.0 1986	Ursula Wiese 607.0 1986
3.1.4b Free out & return	Tony Burton 372.2 T 2003 Tracie Wark 750.2 C 2003	Tony Burton 442.9 T 2003 Tracie Wark 633.2 C 2003	Charles Yeates (K Yeates) 259.9 C 1999	Tracie Wark 750.2 C 2003
3.1.4c Free 3 TP dist.	Tim Wood 871.9 T 2002 Brian Milner 1394.0 C 1993	Mike Glatiotis 869.3 2002	Trevor Florence (J King) 689.0 2002	Sue Eaves 508.7 T 1995 Tracie Wark 592.6 C 2000
3.1.4d Free triangle dist.	Tony Burton 433.4 2004	Tony Burton 515.7 2004	unclaimed	unclaimed
3.1.4e Distance to goal	Marsden/Apps 707.0 1984	Tim Wood 236.7 2003	C Zwarych (H McColeman) 310.0 T 1984	A Williams 305.0 C 1975
3.1.4f 3 TP distance	Walter Weir 756.4 C 2005	Walter Weir 665.6 C 2005	unclaimed	unclaimed
3.1.4g Out & return dist.	Tony Burton 652.3 T 1993 Brian Milner 1128.9 C 1999	Tony Burton 442.9 T 2003 Pat Templeton 525.5 C 2003	Dave Marsden (E Dumas) 421.5 1979	Ursula Wiese 328.0 1984 Tracie Wark 510.3 C 2002
3.1.4h Triangle distance	Hal Werneburg 803.7 T 1982 Peter Masak 1007.0 C 1987	Tony Burton 515.7 2004 Spencer Robinson 655.9 C 2003	John Firth (D Webber) 510.4 T 1986	Jane Midwinter 317.6 1988
SPEED, ▲ (km/h)				
3.1.4h 100 km	David Mercer 141.5 T 2004 Dale Kramer 168.1 C 1999	David Mercer 133.0 2004	Dave Marsden (M Jones) 98.1 T 1975 P Templeton (D Springford) 112.7 C 2002	Tracie Wark 105.0 C 2003
SAC 200 km	John Firth 110.6 T 1984 Charles Yeates 116.3 C 1994	Tony Burton 99.0 2003	Lloyd Bungey (T Burton) 76.0 T 1983 D Springford (P Templeton) 108.5 C 2002	Tracie Wark 99.9 C 2002
3.1.4h 300 km	Kevin Bennett 113.1 T 1988 Peter Masak 148.9 C 1985	Tony Burton 78.2 T 2002 Dave Springford 92.0 C 2003	Dave Marsden (E Dumas) 69.9 T 1975 Ian Spence (J-R Faliu) 128.5 C 1991	Tracie Wark 99.1 2001
SAC 400 km	John Firth 99.0 T 1987 Rolf Siebert 140.1 C 2004	Tony Burton 103.3 T 2003 Rolf Siebert 128.9 C 2004	unclaimed	Tracie Wark 95.0 C 2002
3.1.4h 500 km	Walter Weir 105.7 T 1991 Peter Masak 151.2 C 1985	unclaimed	John Firth (D Webber) 88.8 1986	unclaimed
3.1.4h 750 km	Willi Krug 108.8 1982 Spencer Robinson 118.7 C 2003	Spencer Robinson 103.6 C 2003	unclaimed	unclaimed
3.1.4h 1000 km	Peter Masak 106.5 C 1987	unclaimed	unclaimed	unclaimed
ALTITUDE (m)				
3.1.4i Absolute altitude	Bruce Hea 10485 T 1981 Walter Chmela 12449 C 1974		Bob Shirley (P Campbell) 9083 T 1961 W Chmela (VanMaurik) 10390 C 1975 Bob Shirley (P Campbell) 7102 1961	Deirdre Duffy 8986 T 1991 A Cservenka 9772 C 1969 Deirdre Duffy 6575 1991
3.1.4j Gain of height	Dave Mercer 8458 1995			
SPEED, O&R (km/h)				
SAC 300 km	Hal Werneburg 115.2 T 1983 Walter Weir 191.3 C 1989	Bruce Friesen 113.6 2002	Walter Chmela (H Rominger) 65.0 C 1976	Ursula Wiese 59.6 T 1984 Tracie Wark 132.3 C 2000
3.1.4g 500 km	Kevin Bennett 126.3 T 1992 Walter Weir 150.9 C 1996	Tracie Wark 86.1 C 2002	unclaimed	Tracie Wark 99.6 C 2002
SAC 750 km	Walter Weir 145.0 C 1994	unclaimed	unclaimed	unclaimed
3.1.4g 1000 km	Brian Milner 147.0 C 1999	unclaimed	unclaimed	unclaimed
SPEED, GOAL (km/h)				
SAC 100 km	David Mercer 167.0 T 2004 Rolf Siebert 183.7 C 2004	David Mercer 156.9 T 2004 Rolf Siebert 169.0 C 2004	Trevor Florence (N Marsh) 105.1 2000	Tracie Wark 106.4 C 2002
SAC 200 km	Kevin Bennett 125.9 T 1992 Walter Weir 143.0 C 1995	Tony Burton 113.2 2002	Trevor Florence (J King) 91.5 2002	Tracie Wark 129.1 C 2000
SAC 300 km	Wolf Mix 108.6 T 1966 Walter Weir 145.9 C 1994	Dave Springford 97.5 C 2003	Jock Proudfoot (G Fitzhugh) 70.2 C 1981	unclaimed
SAC 400 km	Tony Burton 81.5 1990	unclaimed	unclaimed	unclaimed
SAC 500 km	Dave Marsden 97.1 T 1970 Walter Weir 138.4 C 1993	unclaimed	unclaimed	unclaimed

SAC life membership revisited

Back in 1985 I took out a life membership in SAC and I wrote a letter to this magazine encouraging others to do the same. I said this program was a good deal for the member and a good deal for SAC. At the time, Bob Gairns wrote in to say that this deal was so good for the member that it was a bad deal for SAC. That was twenty years ago. My old friend Bob Gairns is no longer around for me to argue with, so let's take another look at this whole question.

The advantages to you are pretty obvious. Instead of paying the annual membership fee (currently \$116) you make a tax deductible donation of \$1500 to the Pioneer Trust Fund (back in 1985 that was \$1000). So your after-tax cost is less than \$1000 with a payback period of about eight years. The advantages to SAC are a bit less obvious, possibly because they involve concepts such as "perpetuity" and "forever". You see, that \$1000 that I contributed twenty years ago is still there. Not only that, it has increased to just under \$2000 and in another twenty years it will have grown to over \$5000.

Here is how it works. The Trustee of this fund invests this money and turns over half of the income to SAC with the other half going remaining in the Fund. Long after I am gone, that money will still be there earning interest which helps fund the activities of SAC. That, in turn, reduces the annual membership fees.

It's a good deal for you and it's a good deal for SAC too.

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1-26 travelling trophy

from page 9

press release. We all retired to the Puslinch County Fire Hall to talk things over in cooler surroundings. As I sipped my drink and watched through the fire hall window for the trailer crew to arrive, I was dismayed to see Farmer #1 arrive again, this time with Farmer #2 plus wives, kids and digital video cameras. They made straight for my defenceless 1-26. I rushed to the rescue as the farmers sat their kids in the glider for a picture. This was my cue to explain all about our sport and issue invitations to visit our club. They were amazed that I could fly from Arthur to Aberfoyle with no engine.

All had left the scene when good friends Steve Michael and Charles Petersen arrived to take me and the 1-26 back to Arthur. We exercised our rusty memories to recall how to disassemble a 1-26 and stow it securely on its trailer. The rest of the return journey that day was mercifully uneventful, and we proudly delivered our precious Travelling Trophy to its home at York Soaring. There it rests in the display case for the next challenger to arrive and claim it to start the cycle once again.

PS: The trophy didn't remain at York very long. Dave Donaldson of Great Lakes Gliding flew in on Monday 5 September 2005 in the Great Lakes 1-26 to successfully claim it for his club. ■

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Youth Issues

vacant

with your own money. So, you are out the sale of the glider and you paid to have it shipped." (He works for a camera store and they will no longer ship outside of Canada. They've been stung a few times.) The only way to insure the money is good is with a bank transfer.

My time to reply, so my next e-mail questions his integrity.

Fred I have a concern as to how long it will take Hugh's bank to verify the check as it is on a US account. This is information I simply do not have. Also, would you supply me with the name, address, phone etc of your business as well as a few references that I could contact. I understand there have been some less than honest dealings going on, and although I am sure that you are not involved I would be relieved to have the additional information.

I did not fully understand the paragraph about me sending money to the shipping company. The English seemed a little garbled. I do not know why but your e-mail shows up as spam on my computer. Why would that be? Have a great day. Dave

My reply might have been a little too Canadian but I really can't think of any more to say. I expected that this would be the end of the conversation, but oh no:

Dave I just Got your mail about now. This is transaction is just about to start and I feel you are not comfortable. The details you asked for are as follows: Fred\$)%!\^&*, 15 @#\$* Dublin Ireland 353- that of sending funds over to the shipping company, and that has to do with the accounts section 87627/234181398. What I feel you are not comfortable with is of my client refusing to issue out separate payments for the pur-*

chase of the same airplane. All-around there people who are dishonest but I feel if there is know trust people should not be in business because of the risk involved, moreover life itself is a risk, if you wish to continue with the sale of the airplane you can contact me. Many thanks. Fred

Enough is enough. I didn't reply but I did get another e-mail telling me the check was ready and he can send it immediately. I ignored it.

How did this character get the information that we had a glider for sale? It didn't take long to figure out that SAC listed the glider on the <SAC Services/Classified> web page as part of the service and the ad's e-mail address was mined from there. It really goes to show how small the world has become with the Internet.

As a footnote I received a sale inquiry from a member of York Soaring. He knew about gliders, asked the right questions and beat on me about price. This is the world as it should be — I am being questioned and beat upon. I'm much more comfortable. I still want to put together a group of four people in the Edmonton club. I have myself and maybe two others — so this is a sales pitch to all Edmonton members to step forward and buy a share in a Libelle 201. It is a lovely little floater that is easy to rig and a joy to fly. The best part though is you get me as a partner. ■



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a look at our soaring instruments

In summary, our existing instruments aren't perfect, but they provide very useful approximations of the ideal indications from the physical quantities that they sense. They sometimes use a signal which was acquired for the purposes of an earlier instrument (like static pressure for instance). A new instrument can sometimes be created by adding a new correction to an old instrument. One might expect that a "dynamic" TE vario would share these basic characteristics with the familiar instruments. It would not have to be perfect in order to be useful, it would only need to be a valuable improvement when compared to the current lack of instrumentation. It would sense and indicate the glider's receipt of inertial energy to allow pilots to efficiently use dynamic soaring opportunities.

In order to distinguish this inertial power input from the more familiar sources of lift, and since there has been some historic abuse of the word "total", we might want to call this new form of power import the "GIFT" (the G relative of the good old LIFT). This might make such a dynamic vario the very first device able to measure gratitude, which would be quite a breakthrough in instrumentation technology.

If we approach the design and the construction of the dynamic variometer with the right combination of luck and diligence (since they sometimes come to the rescue of each other), the first design version would hopefully convey the lion's share of its informative potential, and the more subtle corrections added later. At some point the implementation of further refinements will bring as much potential for confusion as they bring potential for information, and we will then be able to say that the technology is mature.

Lastly, we should perhaps keep in mind that some highly experienced pilots can soar beautifully when the instruments are absent or inoperative. That doesn't mean that instruments are useless or undesirable, since they probably played some part in the development of their uncommon virtuosity, and I guess they can still receive our admiration if they do take a glance at them, once in a while, if only to spare the feelings of the instrumentation specialists ... ■

Note: I heartily recommend that you re-read the excellent article in the 6/2001 issue on dynamic soaring and the forces involved. Go to the free flight archive if you don't have your copy. Tony

FAI badges

Walter Weir

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The following badge legs were recorded in the Canadian Soaring Register during the period 21 Sept to 7 Nov 2005.

Next badge listing will appear in the 3/2006 issue.

GOLD BADGE

316 Dan Daly Bluenose
317 Roger Hildesheim Gatineau

SILVER BADGE

993 Jeremy Sawyer York

750 km DIPLOMA (750 km flight)

1 Walter Weir Air Sailing 756.4 km ASW-27B Julian, PA

DIAMOND GOAL (300 km flight)

Dan Daly Bluenose 303.4 km Mini-Nimb Minden, NV

GOLD DISTANCE (300 km goal flight)

Dan Daly Bluenose 303.4 km Mini-Nimb Minden, NV

GOLD ALTITUDE (3000 m height gain)

Rob Frith Vancouver 3460 m L-33 Hope, BC
Roger Hildesheim Gatineau 3620 m SZD-55 Lake Placid, NY

SILVER ALTITUDE (1000 m height gain)

Jeremy Sawyer York 1070 m Astir CS77 Arthur E, ON
Rob Frith Vancouver 3460 m L-33 Hope, BC
Mitsuru Fujiyama Vancouver 1740 m L-33 Hope, BC
Amelie Lebel Champlain 1160 m Pilatus St Dominique, QC

SILVER DISTANCE (50 km distance flight)

Jeremy Sawyer York 84.8 km Astir CS77 Arthur E, ON
Jay Allardyce Winnipeg 91.5 km LS-4 Rockton, ON

SILVER DURATION (5 hour flight)

Hans Vetterli Toronto 5:07h 2-33 Conn, ON
Michael Lam Vancouver 5:24h Grob 102 Hope, BC
Randy Neilson Toronto 5:49h SZD-51 Conn, ON
Rob Frith Vancouver 5:20h L-33 Hope, BC
Mitsuru Fujiyama Vancouver 5:13h L-33 Hope, BC
Amelie Lebel Champlain 5:21h Pilatus St Dominique, QC
Jay Allardyce Winnipeg 5:19h LS-4 Rockton, ON
Paul Czernenko Montreal 5:27h DG-303 Hawkesbury, ON

CBADGE (1 hour flight)

2817 Edgar Thurygill York 1:14h 2-33 Arthur E, ON
2818 Rusmir Mujic Toronto 1:48h SZD-51 Conn, ON
2819 Randy Neilson Toronto 5:49h SZD-51 Conn, ON
2820 Rob Frith Vancouver 5:20h L-33 Hope, BC
2821 Mitsuru Fujiyama Vancouver 5:13h L-33 Hope, BC
2822 Amelie Lebel Champlain 5:21h Pilatus St Dominique, QC
2823 Jay Allardyce Winnipeg 5:19h LS-4 Rockton, ON
2824 Cathy Dufor-Fournier Jr Camp 1:02h SZD-51 Rockton, ON
2825 Francis Duaphinais Jr Camp 1:09h PW-5 Rockton, ON
2826 Thomas Sands SOSA Jr Camp 1:19h L-23 Rockton, ON
2827 Adam Oke SOSA Jr Camp 1:11h PW-5 Rockton, ON
2828 Stephenson Strobel Jr Camp 1:07h SZD-51 Rockton, ON
2829 Jesse Hong York 1:48h 1-26 Arthur E, ON

SAC records

Roger Hildesheim

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

The following record claims have been approved:

Pilot	Walter Weir
Date/Place	17 October 2005, Julian, PA
Record type	3 Turnpoint Distance, Open & Club, Citizen
FAI Category	3.1.4f
Sailplane	ASW-27b, C-GJSJ
Distance	756.4 km Open, 665.6 km Club
Task	remote start Howard2 PA, Cumberland 53/22 MD, Howard2, Cumberland RR, Howard2 remote finish
Previous records	New, unclaimed

You will see in the list on the left that Walter was awarded a badge — the first 750 kilometre badge awarded in Canada. This badge is part of a new family of awards that just became effective on 1 October. FAI badges are now awarded for distance flights for each 250 km increment starting at 750 km. In addition to the badge award, the FAI will issue a diploma for flights of 1000 km or more — again in 250 km increments. A record of these badges is now being maintained in the Canadian Soaring Register along with all other soaring badges and badge legs beginning with the C badge.

Walter made the flight 17 October on his 73rd birthday, out of Ridge Soaring in Pennsylvania. He declared a remote start and finish point on the ridge 34 km northeast of the gliderport and the first and third turnpoints (more than 10 km apart) near Cumberland, Maryland. The second turnpoint was the start/finish point. Walter used ridge lift, wave and thermals and the flight took 6:20 hours from takeoff to landing.

Since Walter is the badge guy, he was tempted to just issue the badge to himself — but had second thoughts and sent his claim form and flight recorder file to Tony Burton, a member of the IGC Sporting Code committee, for homologation.

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

Libelle 201, CF-TQL, #113, 1515h, fresh CofA, all ADs complete, enclosed trailer, located in Edmonton. \$17,500. Dave, <loretta@second-impressions.com> (780) 221-8535.

PW-5, C-GBVS, 550h, great cond, all ADs (incl 2003 tension members upgrade). ILEC audio vario, PZL mech, Dittel FSG 71M radio, Sierra trailer with inside foam spray. At SOSA; if an Ontario buyer takes over the syndicate ownership, no PST. Photos: <http://ca.geocities.com/jaimepinto@rogers.com/PW-5/>. \$31,000. (416) 505-1477, <jaimepinto@rogers.com>.

Std Cirrus, C-GEOD, 1800h. Refinished. Microair radio, elec and mech vario on good TE probe, connections and mounting for Volkslogger and PDA, O2, wing wheel, tow-out bar, trailer nice to tow. Easy flying, great thermalling glider for the great low price of \$19,500. Many photos by email on request. Al Hoar, (403) 288-7205, <gwen.al@shaw.ca>.

Std Cirrus, C-FDFN, 1972, 2300h. Ball 703 electric, PZL mechanical varios, Microair 760 radio with boom. Turn & bank, O2, enclosed metal trailer. Gel coat in good cond. Located in Calgary. \$19,000 plus GST. Gerald Ince, <gince@shaw.ca> (403) 242-6331.

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

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

LS-6b, 1988, 1248h, 405 take-offs. Not flown this year but annual done August 2005. Vg cond. Zander flight computer, Becker transceiver, unique custom-made all-terrain solo rigging device, metered and pressure regulated ballasting system, tow-out gear, modified Komet trailer with twice stand and storage space, solar battery charger. Cal Gillett, (519) 471-3203, <cpq342@sympatico.ca>.

Genesis 2, '98, 331h, 100% race ready. Excl. cond., CAI302, 303, SageCV, WinPilot, ATR720C, trailer, chute. US\$51,000. Dave, <djmercer@telus.net>, (780) 987-6201, Alberta.

ASW-20A, GTRM, 1981, Borgelt 50 Vario, wired for lpaq, Dittel with boom mike, Komet Trailer. Frank Pilz <horst_pilz@telus.net>, (604) 657-7241 (BC).

Nimbus 2B, C-GAJM, 1977, #25, 1120h, 20.3m, 49:1. Flaps, tail chute, 110L water ballast, Filser LXFAI flight computer/GPS/final glide calc, chute, trailer, and all glider covers. An absolutely beautiful flying machine, and proven competitor. Based at York. \$37,500. Peter Luxemburger <iluv2soar@yahoo.ca>.

misc

Volkslogger, IGC approved flight recorder accepted for use in contest, badge and record flying. \$900. <ls6b@rogers.com> or phone Dave (519) 884-4242.

Parachute, Strong 303, 1991, excellent cond. \$450. Tillmann Steckner, (519) 471-3203, London, ON.

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RHJ-8, 1979, 1400h. Based on the HP-14, side by side reclining seating, T-tail. Many improvements: elevator and rudder gap seals, increased rudder length, wing root fillets, winglets. Best L/D 34 at 50 kts, thermal 40-42 kts, stall 35 kts, roll rate under 5 sec. Fits tall pilots. A parallel hinged single piece canopy, improved ventilation. No trailer. US\$18,000 (.0019 L/D points per \$). John Firth, (613) 731-6997, <firsys@magma.ca>.

magazines

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

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

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

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

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

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

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

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

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

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



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