

free flight libre



09/1
Winter



Priorities

Eric Gillespie Ontario Zone Director

IT'S TIME FOR CHANGE At this fall's Board of Directors meeting, we came together to support a number of significant changes in the programs SAC will be offering this year and in the way the organization operates day-to-day. First, the Board unanimously approved a program put forward by David Collard (Pacific Zone) that will see \$10,000 per year directed to supporting youth flying. Up to 20 bursaries of \$500 per applicant (with a matching amount to be contributed by the applicant's club) are now available to every SAC club. If all 20 bursaries are not allocated in the first round, then second or third bursaries will be awarded to those clubs that make additional applications. We are especially pleased that this program has been developed in consultation with *Youth Flight Canada*, which for the past few years has also offered tremendous opportunities to young people interested in soaring. (There's more info in the article on p17 by Peter Musters.) If you know any young person who would benefit from some financial assistance, right now is a great time to apply!

The Board also voted unanimously to bring forward a motion at this year's Annual General Meeting (AGM) to offer more support to our country's competition pilots. Competition encourages pilots to stay in our sport by giving them new horizons as they progress. It builds skills and offers opportunities to publicize the sport. Not everyone competes, neither does everyone want to be an instructor or to sit on a safety committee, etc. Nevertheless, these are all valuable aspects of our sport that SAC must continue to support if gliding is going to attract and retain pilots with a variety of interests and skills. To meet the significant costs of competing at higher levels and to try to improve our standings as a country, it is clear that more financial support must be available. The Board's motion at the AGM would see a contribution of \$10 per paid-up SAC member per year (maximum \$10,000) to the World Team Fund when they compete (every second year) and to our World Junior Team (who compete each alternating year). These funds would not come from a fee increase but from general revenues, surpluses, or investment income generated from previous years. Zone Directors will be contacting each club seeking its views and sincerely hope clubs will support the motion.

A third initiative involves a major change in the day-to-day administration of SAC. As many members know, the organization has operated from an office condominium purchased by SAC some time ago. The "condo model" of operation has offered benefits but has also been controversial at times. At our recent meeting the Board voted to move in a different direction by outsourcing the more administrative functions of SAC with a view to selling the condominium as soon as market conditions allow. Various alternative options are under consideration, the most favourable appears to be subcontracting SAC's administrative work to the Canadian Owners and Pilots Association (COPA), also based in Ottawa. A much different relationship with COPA was considered a few years ago but did not come to pass. Now it appears that an agreement can likely be reached that will result in SAC's needs being met with a significant reduction in our operating costs. SAC and COPA would continue as separate entities; however, forging a much stronger relationship with a similar organization while reducing overhead costs for both appears to be a very positive step for all.

The SAC AGM will be held in Hamilton, Ontario on Sunday, March 8 at the *Canadian Warplane Heritage Museum*, located beside the airport. The museum is a wonderful venue with aircraft from all eras on display including one of the only flying Lancaster bombers in the world. Tours will be offered. One of the new SAC flight simulators will also be set up and operational. We hope you can join us at this great location. Once again we will share the weekend with Canadian Advanced Soaring and the Canadian Team who will be holding their Spring Cross-country Seminars all day on Saturday, March 7. The CAS seminars have always been a tremendous opportunity to learn and get ready for the start of the new soaring season. More information will be available on the SAC website at <www.sac.ca>.

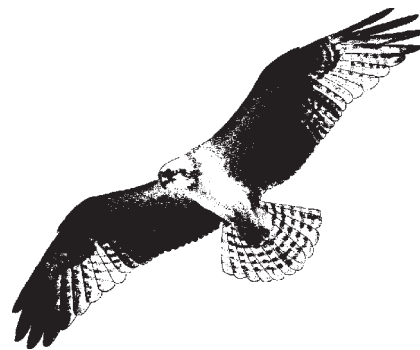
More generally, it's most important for all SAC members to be aware of the real spirit of cooperation that now exists at the national level of our sport. Our Board, from all parts of Canada, bring different perspectives but have proven we can work together to find common ground and move initiatives forward. Over the past two years we've found ways for SAC to work cooperatively with CAS, and now with *Youth Flight Canada*, and in the future (hopefully) with COPA. Many thanks to those involved in these organizations. With much help from many members we have been able to improve our website, purchase simulators to improve safety and training, and to now offer a national youth bursary program and (hopefully) additional competition funding. At the same time we've taken our day-to-day operations in a different direction towards working with COPA, a partnership which should improve efficiencies and reduced costs. SAC has been changing. We welcome your comments and ask for your support as we continue to move ahead.

free flight

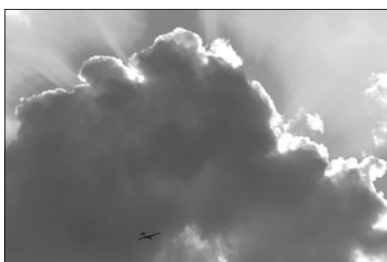
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Cover
"Sunbeam Sky". The Great Lakes Puchacz is very small in a big sky while soaring at the Toronto Soaring Club in 2007.
photo: Dean Toplis

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Plugging in to helping out

Peter Musters

ONE MORE FLASHY NEW K-21 is headed to Canada, en route to Calgary's Cu Nim Gliding Club in the spring. What's more, at the November planning meeting of the Alberta Soaring Council, Phil Stade announced that the club made their new purchase with hand-operated rudder controls and have committed to opening the fifth chapter of *Freedom's Wings* in Canada to provide people with disabilities the opportunity to enjoy that incredible feeling of freedom we all know when we leave the earth. A sixth chapter is in the works with Edmonton for 2009.

In order to support Cu Nim, Peter Musters of *Youth Flight Canada* wrote a \$75,000 matching grant application to the Alberta Lottery Fund's "Community Initiative Program" to provide approximately half the funding required to purchase the glider. Granting agencies are much more willing to support clubs that provide tangible benefits to their community, such as youth programs and especially programs for people with disabilities. Granting agencies, especially in the economic crunch we find ourselves in, have a mandate to support those most in need. Old white men well-off enough to afford flying aircraft who comprise the stereotypical gliding club could not rank lower on this list.

So, how do clubs rank legitimately higher while doing some good in the world? Supporting youth and especially disabled flying programs, with groups like those that *Freedom's Wings* has worked with so far goes a long way. Group homes, Sick Kid's rehab hospital "Bloorview Kids", The Canadian Forces "Soldier On" program, The Sam Sullivan Foundation, BC Mobility Options Society, the Rick Hansen Foundation, Canadian Paraplegic Association, Toronto Accessible Sports Council, KW Access Ability, Breaking Down Barriers, and adapted ski groups are among those who've flown. Notable guests include the Lt. Governor of Ontario David Onley, and even Canadian Space Agency astronaut (and glider pilot) Marc Garneau.

When you give the ultimate experience of freedom with those who need it most, it's a tough call who gets most out of the flight – the pilot or the passenger. While club politics happen wherever you go, this is a program clubs across the country are rallying behind and one in which they come out further ahead than where they started.



Peter Musters



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 the 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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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 vélivoles aux normes de la FAI, telles les tentatives de record, la sanction des compétitions, la délivrance des insignes, et la sélection des membres de l'équipe nationale aux compétitions mondiales.

free flight est le journal officiel de l'ACVV.

Les articles publiés dans *free flight* proviennent d'individus ou de groupes de vélivoles 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.

free flight 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.

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Costs, choices and closed doors (minds?)

According to Jim McCollum's data in *free flight* 2008/1 (*the revolving door*, p14), 30% of 2006 members did not renew their membership for 2007. That is alarming indeed.

In 1963 a glider winch launch was a dollar. This meant the average wage earner had to work about 15 to 30 minutes to afford one. Club fees were low and pilots, even young people, even young parents could afford to get launched. They would launch several times a day and practise their skills. This was done especially on days unfit for soaring. There was no public funding that I know of, and it wasn't an issue because we had a good number of members and the winch left a healthy profit every time it was used.

The winch launch method allowed access to gliding even for people of modest means and for that I am grateful. It opened the door for me to participate in a lifetime of enjoyment. Now, 45 years later I'm still with it, never having missed a single year to be airborne. An aerotow operation at that time in my life would have shut me out, probably forever.

Later then, aerotows were the only option and I participated for over 20 years, never really liking the direction that this was taking us. Too often I saw young new faces show up at the flightline, never to return. Too often I observed licensed pilots sit around waiting for just the right conditions before deciding to get airborne (I include myself).

The articles we read concerning flight safety often end with good advice – fly often, fly safely – but with aerotow being the only option, many are left far behind. I made a quick calculation for the 2006 season for our club and found that the number of solo flights taken by non-instructor pilots averaged 10 for the entire season. After all, it takes 1 to 2 hours of labour for the average working person for a tow that could result in a 15 minute sleighride. It is so obvious that many young people (and others) can't afford this – just look around the flightline and see who our members are – mostly pensioners or others with few obligations.

Why do club executives turn a blind eye to this? For two decades I have lobbied for a change towards a combined winch and aerotow operation so people could have a choice that might give them access to the sport and/

or keep them from dropping out. I was unsuccessful. Especially, but not only, towpilots (with few exceptions) were busy explaining that winch launching was far too dangerous, took too many people, was unsuitable for training, and of course that you can hardly ever get away. A mindset of course, and nonsense.

So here is my view: clubs, if they receive public funding, have a moral obligation to allow a broad sector of the public to participate at the most affordable rate. Affordable for the general public that is, including people with only average income. Instead, we are closing doors to people every year by insisting that the aerotow, being the most expensive form of launching, is the right one. At the same time we are bemoaning the decrease in SAC membership, the closure of clubs, and the high cost of operating.

We must get the average wage earner back to support us, and that means a maximum launch cost of about 1/2 hour of work. A lot of clubs in the world survive only because they use a winch. It's time to rethink strategy – help may be only a mindset away.

Gerhard Dittbrenner, Winnipeg

"middle class" competitions

One of the comments I've heard is about how the people in the racing classes see Club class as an entry-level class. Although I'm sure there is some truth to that, I also see that there is a lot of potential in the Club class, since a large percentage of the gliders registered in Canada that would fit there.

A lot of experienced or gifted pilots fly Club/Sports class more because, in their personal circumstances, they can't justify spending their precious family resources beyond that class. It's a simple mathematical barrier – in my case I have about \$30,000 invested in a glider that gets good Club performance. If I double that amount, I can buy the same handicap and the basic performance would only go up by something like 5%. To get into the next level of performance I would need to triple or quadruple the investment. There is a sweet spot at around \$25-\$30,000 that gets ~40:1 that people can (barely) justify against their other priorities.

Check these handicap figures:

continued on page 26

One day in the life ...

Art Grant, Winnipeg GC

our man in Rieti, Italy, hard at work in the other World Gliding Competition

I had contacted Rieti Contest Director Leonardo Brigliadori through Marina Galetto, a steward whom I had met in Eskilstuna, and offered my services for the Technical committee. He accepted and I was in!

UPON ARRIVAL AT CIAMPINO AIRPORT in Rome from a night on the floor at Luton airport, England, I was met by a nattily-dressed driver and a big Mercedes Benz! The trip to Rieti, about 50 kilometres north of Rome, was quick – at times over 160 km/h. At the Rieti airport I was introduced to Georgio Balaratti, the deputy competition director, and he informed me that I was to be in charge of the pre-competition scrutineering and the entire weighing operation. There were to be six of us on the team, five Italian volunteers and the lone Canadian.

I was taken to an Italian forces base nearby where the foreign staff was to be housed and, upon registration, I was given the identification badge required for access to the base. The room on the second floor which would normally house three was all my own – neat and clean with a great tiled bathroom. But – hot, hot, hot – no air conditioning and leaving the windows open at night was an invitation to mosquitoes, as I soon learned.

The only downside to being housed on the base was the time restriction – the gates closed at midnight! This caused problems the night of the final party when we were forced to return home prior to its end, but I did get to watch the fireworks display from the base grounds.

Back at the airfield, workers were busy completing the construction of the new administration building and the outdoor restaurant and tented meeting area. The first unofficial practice day was an organizational nightmare – no towplane fuel and disagreements with air traffic controllers. But in the end, by the last practice day it was all up and running smoothly – Italian last-minute efficiency!

As in previous Worlds I have attended, each glider had to be weighed, inspected and a tow-out weight established. But because this was my first Club class competition at the Worlds, there were many differences. I was introduced to the IGC Handicap List by Chief Steward Brian Spreckley – utilized to ensure each glider meets its handicap limitations. A few of the Club class gliders could not meet the weight restrictions of their handicaps and new handicaps had to be set – a job the stewards looked after, thank goodness.

It was also my first exposure to World Class gliders. First we had to find the heaviest pilot to arrive at the maximum ballasted take-off mass for each of the PW-5s. In addition, a set of templates had to be applied to each entry to ensure

no modifications had been done to the glider – at three positions on the wings, on the fuselage and on the main wheel fairing. The Standard class was more familiar to me – basically it was a matter of having the correct amount of water to meet the class or glider limitation.

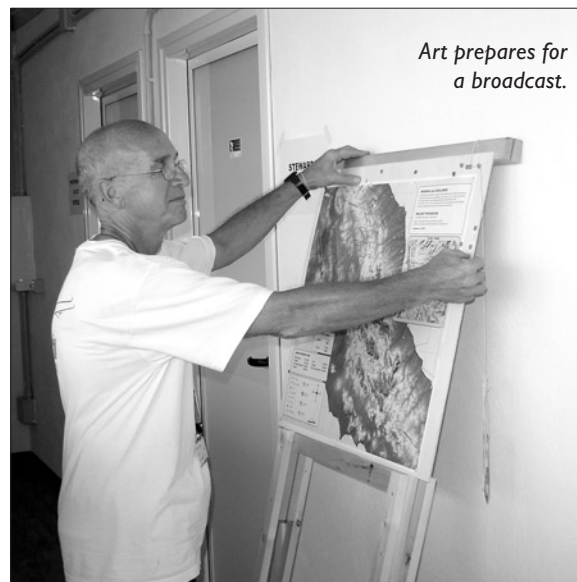
Schedules for inspection were posted and by the end of the third day we had the majority of the over one hundred gliders ready for the contest and were able to conduct trial weighing on the last practice day. It was all coming together very well.

After a few contest days, I had established a routine. I had begged a bicycle for use during the contest – an ancient pink lady's bike complete with white wall tires and a chain guard. It suited me perfectly and was soon named 'The Pink Panther' by Ulf Dahlmann, my South African friend Swen's crew. Here's how a typical day went:

6:00 – wake up, shower, etc, etc. Close the windows and the exterior shutter to keep out the heat. Load up my camelback with water (much needed in the heat), pack my backpack with the day's necessities like camera, notebooks, pens, money, etc. and lock up.

7:00 – mount up on the Pink Panther and ride about two kilometres to the airfield. I'm usually the first to arrive.

This morning Georgio arrived about the same time. He is running the show now, as the CD Leo Brigliadori had to go home – his wife was very ill and while he hopes to be back, we accept that it may not happen.



Art prepares for a broadcast.

... into the office which I share with the meteorological crew, fire up the computer and print out the day's weighing record sheets. Three sets of clipboards, pens and record sheets are set out in our hangar space – one for each of the scale crews. One scale is put on charge at the end of weighing each morning and it must be checked and loaded for transport to the runway.

7:30 – breakfast under the tent with a double espresso and a cononetto con crème. Italian breakfast is not their big meal of the day! No fruit, no cereal, no toast.

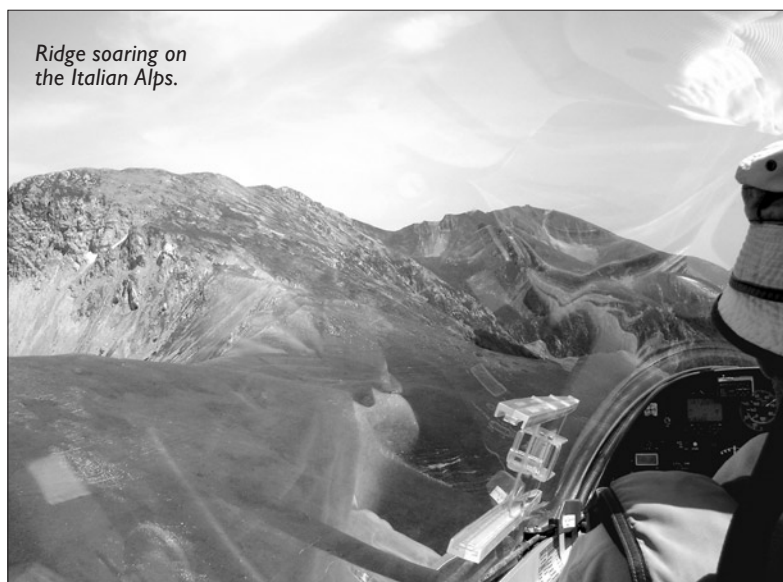
It took me a while to get used to the Italian feeding schedule. Little or no breakfast, late light lunch of fruit and cheese, and a late, late full supper. But I thrived on it! It seemed to help counter the high temperatures we experienced during the contest.

8:00 – open the first scale for the early birds. The other two usually open up at 8:30 when the rest of the crew arrives. I have two very competent and eager young students, Marco and Mariano, who have picked this up very quickly and are usually early as well.

The scales here are wonderful – by far the best setup I have seen in the five contests I have worked. They are in permanent concrete pits in three places along the edge of the runway. After weighing the scale pits are covered with metal plates. I am working my scale with Enzo Centofanti who, it turns out, is a first class cartoonist. His first production of this contest is one of me and it brought tears of laughter to my eyes. A diminutive and quiet gentleman, Enzo was a helicopter instructor and Georgio's first gliding instructor, as well as being a great guy.

10:30 – attend the briefing in the big hangar across the way. Generally this was possible only if the majority of the gliders had been weighed.

On one occasion we closed all three and attended en masse to be presented to the assembly and awarded with bottles of commemorative wine. Mine made it back to Canada safely!



Ridge soaring on the Italian Alps.

11:30 (or sooner, if finished) – close all scales and head back to the office to record all the data from the weighing and print copies for the stewards.

We maintain a spreadsheet of glider weights for all classes in order to check for variations in either sailplane mass or scale results. Pilots are entitled to request a re-weighing to check the tow-out weight if they disagree with the daily result. This happened on a few occasions but no changes were required.

12:00 – free time until the launch commences. This is a time for doing some e-mails home and maybe uploading some photos on to our club website <www.wgc.mb.ca>.

Often there are small fires to attend to like yesterday when I had to be at the flightline to supervise the addition of 7 litres of water to the tail fin of a Discus 2 belonging to a young lad from Switzerland. Pilots were not allowed to change anything after weighing without an official present.

Once launch time nears the dining tent is usually deserted and I head over for lunch. I have been eating the same thing every day – sliced tomatoes and mozzarella, prosciutto on melon slices, bread, and a cold beer! (I finally have a job where I can drink beer with my lunch!)

On one occasion, though, I missed lunch! I was able to talk myself into Chief Steward Brian Spreckley's Duo Discus for a two-hour flight. We launched after the last competitors and flew with them in huge gaggles until they started on course. We ridged our way up Termanillo, the highest peak near Rieti, and did some local sightseeing (see photo). What a thrill!

Back at my office I begin preparation for the day's broadcast. Last winter I had agreed to be the 'English voice' of the contest simulation. The hope was that this would go out on the internet but it was not to be as sponsorship agreements made it impossible.

Information on each of the contestants in the tracked class such as current placing, point totals and previous finishes will all be used to add colour to the broadcast. In addition, I have prepared a map of the contest area showing major geographical features upon which I plot the current task with distances to turnpoints. Having this at hand during the broadcast made descriptions of the race much easier for me and, I hope, more interesting for the spectators.

2:00 – into the office for the presentation. A brief discussion with Giuliano and Alex about today's broadcast, a quick check on which trackers are functioning, and begin the broadcast.

Giuliano and Alex have put together a great product – a fine meshing of the Condor flight simulator and high definition photorealistic scenery of the contest area. Information from trackers installed in the gliders and downloaded to the office allows for a presentation of the contest that is very realistic. We had no ➔ **p28**

the **PERKOZ**

a new trainer reaches the market



indirect translation from *Aerokurier* by **Jerzy Szemplinski**

THE NEW PERKOZ is built by SZD *Allstar* in Bielsko-Biala, Poland as a primary and aerobatic training glider. At first glance the optimized-for-training two-seater seems a lot like an old friend. However, the tail configuration leaves no doubt that it is not a Puchacz. The horizontal stabilizer has been located further to the rear, the wing profile is different, and the fuselage has a slightly different shape.

The goal of SZD *Allstar* was to offer an alternative to the ASK-21 while providing performance similar to the Duo Discus or DG-1000. The company presented this second prototype at the AERO 2007 aviation show in Friedrichshafen, Germany. It had made its maiden flight just a few weeks before. (This Perkoz was not a new model – the first prototype was displayed ten years earlier at the AERO 1997, and it now flies in Colorado.) The Perkoz did not go into production earlier due to financial problems at SZD at the time. Today, the new company, *Allstar PZL Glider*, builds the popular Standard class SZD-55, the single-seater aerobatics glider SZD-59, the Acro single-seat trainer, the SZD-51 Junior, and the Puchacz.

Two wingspans for different uses

Not only were the flight control surfaces changed in the Perkoz as compared to the Puchacz, the wings have the same airfoil as the Jantar and the wingspan is larger. The fuselage and the distinctive canopy are almost the same in both two-seaters.

In the basic version, with a wingspan of 17.5 m, the Perkoz has a wing area of 16.4 m² with an aspect ratio of 18.7. Wing loading can range from 28 kg/m² (with one person on board) to almost 36 kg/m². The wingspan may be increased from 17.5 m by exchanging optional 20 metre wingtips. With the planned change to a retractable undercarriage, the Perkoz will have a max L/D of 42, similar to Duo Discus or DG-1000.

The characteristic features of the new GRP construction are the new control surfaces. The fin seems to be smaller than in the Puchacz and the horizontal stabilizer has been moved below the rudder. The elevator sticks out to the rear of the rudder.

Flight impressions

Flights in Schönhagen show how these changes have influenced flying qualities. The best and most important news is that when flying at low speed, this two-seater is more gentle than the rather aggressively reacting Puchacz. It is impossible to stall the Perkoz unintentionally as the high nose position and buffeting leave no doubt that it is close to stalling speed.

In this state of flight, it is possible to make a correction with the rudder. After exceeding stall speed, the nose of the Perkoz drops. It is easy to level off without any significant altitude loss by deflection of the elevator. The glider reacts properly in a stall in straight flight as well as

in turns, and does not react badly even in a side slip. The Puchacz behaves in a completely different way – its reaction to a stall is often a spin, which is not a good thing in a training sailplane.

The Perkoz reacts to pro-spin and spin-correction control deflections in a completely standard way.

The Perkoz had been already used during training aerobatic flights and is classified the same as the ASK-21, but its range of possible aerobatic maneuvers is even wider.

The main use of the Perkoz is student training. At 365 kg, and thanks to a tricycle undercarriage, it is easy to move about on the ground by two people without much effort. Getting in and out does not require any particular fitness. The large single-piece canopy with a built-in rear instrument panel opens sideways and is protected from excessive movement. The canopy is roomy enough for people up to 1.80m tall.

In the production version there will be more room for taller pilots because cut-outs in the instrument panel are larger and give more legroom. There should be more room for the elbows also. In the prototype, the covers for the rear rudder pedals built into the front seat restrict arm movement during air brake lever operation. The release button should be placed a bit lower inside the cabin and not so close to the side wall.

Control pedals are adjustable only in the front. However, in the rear seat, the position can be set by the adjustable seat. The headrests are also adjustable. Seats in the cabin are ergonomic and comfortable. The rear pilot seat sits a bit too far back, but because of an extra window, visibility is good. The rear seat is a bit higher so there is good visibility over the front pilot's head.

Apart from a cg hook for winch take-off, which is placed a bit to the right of centre, the Perkoz has a front hook for aerotow close to the nose. In both types of take-off, its behaviour is proper for a training sailplane. During the take-off roll on a winch launch, it is necessary to deflect the rudder right, which is unusual. During aerotow, flight is stable and the towplane is visible.

In free flight, the aileron forces are light and the rudder force is moderate. Flying speed range can be adjusted effortlessly by trim. The Perkoz is very stable and, once trimmed, thermals effortlessly in non-turbulent conditions without any pilot intervention. On the other hand, the wing is "talkative" – movement of air is perceptible. That is why first flights in thermals would not be a problem. The glider is typical of other sailplanes of the same class with regards to maneuverability.

A steep approach to landing is possible thanks to the Schempp-Hirth type air brakes. The reaction of the sailplane to movement of the elevator or trim during the flight with open air brakes is correct. Sink will increase even more if sideslip is used.

The landing attitude of the Perkoz is unusual compared to German two-seater sailplanes, but typical for Polish sailplanes. It sits on the main wheel located almost at the centre of gravity. This undercarriage arrangement causes the tail to flick up during two-point landing. The undercarriage has an olio and a TOST wheel with hydraulic disk brake. The brake lever is located on the control stick.

All in all, the Perkoz is a good training glider and gives full value for aerobatics pilots. It has quite a large load capacity. It is also a good sailplane for light young pilots (minimum load in front is 55 kg / 121 lbs). Overall, the prototype makes a good impression.

The Perkoz is reasonably priced at 65,950 €. Additional costs are the trailer and flight instruments. European type approval is expected in 2009, and the next three gliders are being built.

- | | |
|------|--|
| Pros | <ul style="list-style-type: none"> • good performance • spin capable • suitable for aerobatics • neat finish |
| Cons | <ul style="list-style-type: none"> • big fuselage inspection hole covers difficult to attach • tailplane connection not automatic (in the prototype) • flexible lines and wires in the cockpit not protected (in the prototype) |



Technical Data

Model	SZD-54-2 Perkoz
Use	Two-seater training sailplane
Manufacturer	SZD Allstar, Poland
Construction	GRP
Span	17.5 m with 20 m tips
Wing area	16.36 m ²
Aspect ratio	18.7
Airfoil section	Jantar Std.
Fuselage	8.25 m
Height	2.05 m
Mass (empty)	365 kg (803 lbs)
All-up mass	585 / 565 kg * (1287 / 1243 * lbs)
Wing loading	28 - 36 kg/m ² (5.7 - 7.4 lb/ft ²)
V _{ne} speed	240 / 265 km/h * (130 / 143 kts *)
Load factors (g)	+ 5.3 / -2.65 +6.6 / - 6.6 *
Stall speed	63 km/h (34 kts) @ 460 kg (1012 lbs)
L/D _{max}	42 @ 109 km/h (59 kts)
Min sink	0.66 m/sec (130 ft/min) @ 82 km/h (44 kts)
* aerobatics category using 17.5 m span	

Trying a real contest

Frank Cwikla, Winnipeg GC

I HAVE FLOWN SOME CROSS-COUNTRY in Manitoba and declared them for the OLC in the last few years. That format provides a low stress level of competing at the club level. It seemed like a good idea to try a real contest flying and the “fun” format was just perfect for me. Going to a different area would make it even more interesting. In his e-mail posting, Phil Stade wrote, “The North Battleford area has lots of rolling terrain and wide open spaces for pilots who choose to hone their landout skills”. This was definitely a selling point – I signed up.

My partners in the glider approved my contest trip. One of them offered to crew for me. Another one offered free rental of a Ford van, which proved to be a good flight-line and retrieve vehicle. The vacation time from work was approved. My wife decided not to divorce me this year yet, so I was ready to compete.

We arrive on Wednesday, 25 June, a one-day drive from Winnipeg. We spotted a glider circling over the field when we got to the airport, the Blanik from the Saskatoon club. We knew we were at the right location. We used Thursday to get some rest, explore town and set the trailer in the secure area of the airport. The day offered some sunshine and a few flights in the Blanik. Phil Stade convinced me that thermaling to the left isn’t that hard and we spent some 30 minutes over the field practising for the contest. Not all of his passengers enjoyed the wingovers that evening and a quickly approaching storm forced us to store the Blanik in the hangar.

DAY 1 No task, but it turned out to be a real battle for some flight recorder owners and computer programs that just would not cooperate with their pilots. A big thank you goes to Hank Hees for all his help and a big sorry from me to Gary Hill for offering him a “good” TP file for his Colibri.

Phil goes over some safety issues including the need for drinking water and eating during the flight. He offers his own example of “lack of food fatigue” during the flight. Henry thinks that this is called “being hungry” by some people. I know that I am in a group of good people with great sense of humour.

DAY 2 Saturday is the task day. It’s an Assigned Area Task (AAT) with three TPs: Rabbit Lake, Maidstone and Cando with generous cylinders of 25, 60 and 25 km radius. I have grid position 13, my “lucky” number. The

forecast looks good and the task may be flown to complete a 300 km FAI triangle. I decide to try this.

The release height is 2000 feet and I find good lift right after release. I leave for the task at 7000 feet. I reach the 5 km radius start cylinder below the 6800 feet maximum altitude. I meet John Mulder in the Genesis 2 after about 15 km. His glider is easy to recognize and we thermal together once or twice. John took off just before me and this tells me that I am doing okay so far.

The first turnpoint is Rabbit Lake, 52 km northeast of North Battleford. I reach this area in a short time with some tailwind. Things are looking great except for the PDA running the WinPilot program. While my Colibri tells me that I have passed the turnpoint, the PDA tells me that the TP is still 18 km to the northeast. I consult the “paper” map and test my navigation skills. A nice lake to the northeast makes things easy to sort out. Another test using Colibri for navigation proves that I have reached the first turnpoint. I decide to ignore the PDA for now.

I start my second leg to Maidstone and go west against the wind. There is more blue space between the good clouds and flying becomes a bit harder. There are good clouds more to the north but this would take me even further away from Turnpoint 3 and the airport. I decide to stay closer to the north shore of Jackfish lake.

The terrain here is at 2000-2500 feet msl – much higher than our average 1000 feet for the Manitoba landscape. I get low but I find a good thermal and get back to 7000 again. When I reach Edam, the sky looks mostly blue towards the second TP. I enter the cylinder and turn southeast. The conditions become totally blue now and lift is harder to find. I get quite low some 15 kilometres west of North Battleford and head upwind towards a hill where I find lift and get to almost 8000. The thermal becomes a popular spot when Ron Cattaruzza in his SZD-59 joins me. We thermal together and contemplate the option of entering the last cylinder of Cando. We explore another weak thermal and decide to fly towards Turnpoint 3.

I head southeast, enter the cylinder, and start the return to NB airport. It’s almost 6 o’clock and the thermals get turned off at that time. I don’t find any usable lift and start looking for a field to land. Ron in Kilo Mike stayed more to the west and has the final glide to the airport.



He offers me his moral support and waits until I report my safe off-field landing 16 km southwest of the airport. The field I picked is flat with a hill to the west. The low crop looks like cabbage, but it turns out to be canola. The whole area is surrounded by rolling hills and is far away from the main roads. I call my crew and give them the GPS coordinates (these prove to be of great value later). It takes almost three hours for my crew to arrive. I walk the edge of the field west and east to find the best access road. I decide to visit the farm about a mile to the north.

A friendly dog barked his hello to me. I stepped on the porch and met farmer Dan. He was surprised to see me, since he didn't hear a car coming to his yard. I explained my situation and we went back in his truck to see the glider. He is happy to see that I landed in his neighbour's field and offers to pull the glider to the dirt road. I call my crew visible at the distance now and direct them to the field. We have to disconnect the trailer and turn it around by hand. The ruts in the dirt road are almost a foot deep and the trailer axle gets hung up on occasion.

Good teamwork with now friendly farmer puts glider in the trailer. We take time to explain to Dan how the parts fit together – he is mechanically inclined and quite interested in the glider details. We get directions from Dan and leave as the sun sets at 10. As we drive back I listen to my crew Mike Basford and volunteer Tim Radder. Their struggle to find me is very interesting. It starts with a bridge out and no room to turn the big van and trailer, a long detour while the currently-used bridge was just 400 metres away. We get to the airport at 11 pm where we find Phil still hard at work. I deliver my flight file just in time – the scoring program still needs some work. The next morning I request more time to complete the task. We are all tired and I am happy for flying a 225 km task. I didn't complete it but I hope the scoring program offers bonus points for a long retrieve and hard work.

DAY 3 No task. We get to the airport early, assemble and check glider and still make to the pilots meeting at

10 am. The weather may not be good for a task and the day gets cancelled at 2 pm. I welcome this decision as I could use some rest. We tie the glider down and head to town. I call the owner of the field I used for landing yesterday and explain the circumstances. He accepts the crop damage as marginal and wishes me good luck in the contest.

DAY 4 I get launch position #2 and find very good lift after release that takes me to 9300 feet. My averager shows 7 knots despite the gear down. I listened to the vario beeping at high rate and didn't hear AI informing me about the gear. I turn on task but at 5 kilometres out I am still too high and have to turn back twice before I comply with start altitude.

The task TPs are Wilkie, Edam and Hafford with 40 kilometre radius cylinders each. My plan is to fly a short task and visit each cylinder. I would like to attend the official supper at 8 pm and give my crew some rest. The first two legs go according to plan.

I have sorted out my PDA problem – it was lack of training on my part. With the equipment and glider in order, I reach the first zone in 15 min and turn northwest – it is already 3 pm. I reach the second cylinder in about 35 minutes and turn southeast with a tailwind. The thermals are weaker now and they don't go very high. I reach the third cylinder and look for a climb that would take me home. I get down to 4200 feet before I find a weak thermal. The wind pushes me east as I climb. I check another cloud that has no lift and start heading home from 5400 feet. The ASW-15B does not penetrate well into wind and I don't find any usable lift along the way. I fly along the main highway and concentrate on field selection. I pick a good field, fly over it, note a big pole in the middle of it, do my checks and land. I check my GPS and note the distance to the airport at 10 km! It was so close.

I check the field and call my crew. Mike arrives in an hour and a half and we load the glider in 50 minutes with

some rest time. Mike confirms my good field selection: stubble, flat, next to highway and close to access road. When I start driving, a tractor driver who looks unhappy with some strange looking vehicle in his field blocks the access road. I explain what happened and we get okay to leave the field. I thank Mike again for stopping to buy me a cold Coke on the way to pick me up.

After a quick shower we are only thirty minutes late for supper. Food is good, stories are great, and we are full of energy for another early morning rigging ... We stop at the airport and I provide the flight file for scoring. Phil says that I am in second place after two days – I must be receiving a huge amount of bonus points for landing out. I also learn that the day was quite difficult and not too many pilots completed the task.

DAY 5 My early complaints about grid position 13 were passed to my friendly scoring program and I get awarded with position #1 today. We are still not ready with the glider and have to be at the grid by noon. There is some power traffic over the field that buys us some time. I am not too happy with my “sniffer” position despite the forecast for an early lift.

The wind is from the north at about 15 knots. We take off and hit turbulence over some trees and hills. We fly back to the usual release point over the Wal Mart parking lot. There is no lift there today. I think maybe I should try the Zellers parking lot. I decide to go to the source of the turbulence we hit after the take off. After about 10 minutes and losing 1000 feet the bumps get together and start producing lift. It's quite choppy but it takes me to 7000 feet with an average of 6-7 knots at some point. The power traffic pilot keeps an eye on me when I struggle and I am out of their way once higher. I inform Contest Ground about the conditions and leave for task. The task is Wilkie, Glaslyn, and Hafford with cylinders of 40, 50 and 40 km radius. With the wind from the north I plan to fly mostly north and be careful with the eastern areas.

I reach the first zone in less than ten minutes and then turn north. Soon I get down to 5000 feet and start heading back towards the airport. The good lift is just starting and I get back to 7000 feet again. I cross the river and start my north run again, having the airport just downwind. I hit some streets and only stop for the good lift. The wind shown by my PDA is 30 km/h and this makes my ground speed quite low, but the conditions are getting better and better. I reach the second zone near the town of Meota on the west shore of Jackfish lake. It's only 2 pm but I decide to fly downwind and make this a very small task.

It's the last day of contest and my last chance to land back at the airport. There is still derigging and packing to be done. We also need a good night's rest before the whole day of driving back to Winnipeg.

In less than 30 minutes I reach the third cylinder and turn west towards the airport. I still don't trust the area east of North Battleford. I am only 30 km east and in good lift. I decide to visit my landing site from yesterday. The field is

still there and it looks very inviting but I decide to ignore it. I make my call at 9 km out, reach the 2 km zone (for the first time), burn some altitude and land on the paved runway. It's not as soft as my previous two fields but I will accept it this time. I get immediate help and move the glider off the runway. It's so nice to complete the task, even a short one. I learn that some pilots left on task just 30 minutes ago. I help John Toles who starts the task 30 minutes after my landing and he gets the second score of the day in his second attempt.

The flightline looks understaffed. Some young fellow asks me to help with the flight sheets, radio and the contest cell phone. He promises to come back in ten minutes. He never comes back. I am fine with this. I help Mike, my dependable crew, to get ready for a flight in our ASW-15B. I mark down the landing times of the returning gliders and try to determine who is still flying. More and more pilots move and derig their gliders while I am still on my post as the “flightline operator”. There is a group heading for supper while I am still waiting for Ron and Phil.

It's around 5:30 when the hot line rings. It's Ron with his admission that he did not learn anything from my experience and tried to stretch the day east of North Battleford. I get the details of his landout and promise to organize his crew soon. We decide to move our glider to the terminal area and manage the flightline from there.

Roy Eichendorf and his Saskatoon group offer help to Ron. His landing site is almost on their way home. We bring Ron's van from the flightline and start derigging our glider. Phil lands around 7 pm and we have all pilots accounted for. With all secured for the trip home we head off for a late supper. As we approach Boston Pizza's door we spot a nice looking trailer with SZD-59 markings passing by, so Ron is safely home. The supper tastes good and then I go back to the airport to hand in my flight file. It's after midnight when I go to bed.

Our planned “early start” gets delayed and it's almost 10 am when we start driving back. We pick up the trailer at the airport, say few goodbyes to some pilots still present there and drive home. We reach our club field in Starbuck, Manitoba just before sunset. Despite the late hour there are hundreds of friendly mosquitoes offering us a warm and very personal welcome. This dramatically speeds up the securing of the trailer at its usual spot and unloading of some items. We make a brief report to a few club members on the field and spend the next 45 minutes trying to persuade the mosquitoes to leave the van while driving to the city.

Back at work the next day, I still think about the contest and all the fun we had. I check my e-mail at lunchtime and get the results. I couldn't believe that I got second place. This made all that hard work even more rewarding.

I would like to fly in this fun contest again. This time I am going to land out every time – the scoring program offers great rewards for that and I already know some good fields in the area. I may not tell my crew about my plans beforehand... See you all next time!

the Arch

Henry Wyatt, ESC

Wulf Plester



A massive Chinook Arch and high wind give inspiring flights and require careful landings at the fall camp.

Monday. The last day of the Cowley fall camp. Most had already gone home; just a few of us were left. Then the wind began to blow from just the right direction. Wave clouds began to form underneath a huge developing Chinook Arch. I was the only one from our club left, and our Puchacz was waiting. I asked Phil Stade if he would guide me around and teach me some wave management, so we donned extra clothes, put on the masks, switched on the EDS, and launched.

The tow was rough with plenty of slack rope problems to keep us busy, heading towards the Crowsnest Pass and then turning north into the primary. When we released about 3700 feet agl we were already in strong lift. It took little time to reach the 12,500 ft floor of the airway above us, so we moved north of Centre Peak to clear it. Just south of the Gap the lift slowed and fragmented, but small rolls of cloud still marked the wave location and we kept on upward. By the time we reached about 16 – 18,000 feet we were right over the Livingstone Range and began to push west.

The huge arch cloud was above us, and we were searching for its front edge. Then we hit it, with the Livingstones just behind us. The variometer pegged and we were climbing at over 1000 feet per minute. The wave was like glass, just the altimeter ticking off the thousands of feet like clockwork, not slowing until we went through 25,000. I was excited enough at this stage and asked Phil, through the mask, what were the plans. "Onwards and upwards", he said, so on we went, but not before I asked him to check the cylinder pressure gauge. We were still climbing about 500 ft/min when we reached the block ceiling at 28,000. What an amazing place! The front wall of the Arch was behind us – we were perhaps halfway up. On the front edge long cloud fingers pointed west. The sun was on us, and seen through those wisps and fingers, refraction through ice crystals formed rainbow colours. I was intrigued, awestruck, overwhelmed.

We didn't hang around. The descent was smooth, but it was not easy to come down. We moved forward to the backside of another wave cloud to the west to take advantage of the downside of that wave, and we pulled full airbrakes. It still took a long time. We are in error when we assume that, if anything goes wrong, we should just point the nose down and we will be all right.

We crossed over the 18,000 foot top of the airway and descended on its south side. Below 10,000 feet we moved back to the tertiary wave, where the lift close to the airfield and over the Oldman River was a reliable 6 to 8 knots for the two hours or so that we hung around hoping the wind would moderate. Probing to the south we could hold zero sink at 75 knots, but we found no more lift south of Cowley and turned back.

The wind was a-howling on the ground; so much so that Dave Rolland in the towplane went to Claresholm and then to Black Diamond because he found the turbulence at Cowley unacceptable and the wind too strong for a safe landing. Two other aircraft had launched behind us before the wind became too strong. Eventually the Blanik landed, descending near vertically to a diagonal landing across 21, and when those on the ground had secured him we landed too. Penetrating to land diagonally across the intersection towards the cook shack we needed 80 or 90 knots, and sat in the machine until it had been towed forward to the cable and the first tie-downs were placed. The other pilot, Ron Cattaruzza in his Acro, was at 18,000 feet at the north end of the block, chose to go to Black Diamond to avoid the winds.

What a day. What an experience. I'm hooked.



“Air Dogs”

Phil Stade, Cu Nim

the Discovery Channel ‘aces’ experience some wave flight

I KNEW THERE WOULD BE CAMERAS ON BOARD but these cables, microphones, recorders and transmitters don't leave much space for pilots! The sound and camera guys have spent the last four or five hours duct taping everything into place in Peter Neary's 'CU', a 20 metre two-seat IS-32 super-Lark. They've checked video and sound recording multiple times and now that the rain has stopped it's time for Mark and me to try it out.

Yes, this is the Cowley fall camp, but the extras are the crew for Mark Miller's production of another Discovery Civilization *Air Dogs* episode. Mark and 'Rooster' (Captain Bob Reichert) are the hosts of the show and this time their adventure is to challenge the Livingstone lee wave in a glider. Boy, were they in for a ride. The director, Neil Thomas, is the son of Garnet Thomas who was an active Edmonton glider pilot in the 80s and 90s and as a youngster, Neil attended Cowley camps with his father. Garnet had contacted Tony Burton in the summer to sound out the possibilities and practical aspects of doing a gliding episode that met the adventure theme of the TV series and that the series pilots could actively engage in. The Cowley wave in a two-place sailplane was the obvious choice.

The rain has been wiped off the canopy and Lyn Michaud in his Scout towplane is taking up the slack for our first tow with all the on-board equipment. We don't expect any wave

but as we head southwest toward the Crowsnest Pass and the Frank Slide we see that rotor clouds are forming to the east of Centre Peak, a sure sign of wave activity. Mark tries his hand on tow but a few seconds is enough of a challenge and the glider wins. We do contact lift and Mark gets his first taste of rotor and wave flying. Both are a lot more active than he anticipated which, of course, is what we hoped for.

Back on the ground there are a few interviews to record, scenarios to act out, and changes to be made to the wingtip camera mount. On tow the shape of the duct taped camera mount has added lift to the left wing and Rooster, a Canadian Forces test pilot at Cold Lake, has come up with a solution. He tapes a pencil across the face of the mount to 'trip' the air flow. It works and flying controls again respond as they should.

Sunday looked like a great day for wave so we tried to get started early but it was still mid-morning by the time Rooster, the aircraft and I were ready to launch. He flew the complete aerotow which was more demanding than usual since we were flying in formation with a Cessna 182 chase plane with a cameraman on board. Safety was foremost on our minds so each change of direction was pre-announced and the occasional roar of the 182's engine reminded us of the need to be alert.



Wilf Plester



Phil Stade (left) and Mark Miller (kneeling) go through the motions of tying down CU.

Mark explains some aspect of his flight to future viewers.

The line of rotor clouds associated with the primary wave was ahead so I advised Rooster to tighten his belts. At the moment we hit wave the chase plane was at our eight o'clock and the towplane was straight ahead. Rooster was doing a great job of the extreme turbulence but suddenly we were rocketing up. The chase plane and towplane vanished! We both hauled on the release and moments later the average climb rate was over 16 knots! We could see Lyn's towplane making a run for it below and we could hear on the radio that the chase plane was struggling valiantly in an attempt to catch up to us. We were still finding pockets of rotor and the glider was just doing its own thing which was never smooth and level. Rooster had his hands full so the conditions were perfect for the show. Unfortunately the cameraman, strapped in the open door of the chase plane, got very little footage as he fought the camera reacting to the negative and positive G generated by the rotor. In moments we were over 11,000 feet. It would have been tempting to continue climbing but Rooster had a meeting to attend and a flight to catch in Cold Lake. Landing the big bird is sometimes a handful but Reichert showed his stuff and aced it. Here is Rooster's recollection of his experience:

When Mark told me about the plans to do this show on the "Cowley Wave" I was excited but at the same time concerned that we could potentially reach altitudes well above those attained in pressurized aircraft. I also knew that the weather mechanism over this area that could deliver the energy to propel a non-powered aircraft to the edges of the tropopause and higher must be handled with care and respect.

Throughout my career it was generally accepted that mountain wave and all the turbulence associated with it should be avoided. The physiological aspects of this flying also had to be considered. The comforts of pressurization were a non-player and would be replaced with arctic parkas, hot shots and some aviation oxygen. My first flight in the glider showed that the 40+ glide ratio was possible. But to get this performance, its design weight is minimized even though its construction has to be able to withstand the punishment an aircraft would be subject to operating in the turbulence associated with the mountain wave.

This second flight was to be my record attempt. Phil had been watching the weather all morning and was confident that the ingredients were there for a "good" flight. Takeoff and tow were

uneventful at first. Then without warning we were in some of the worst turbulence I have ever experienced. The towplane immediately disappeared below our nose even with the spoilers deployed. I think Phil and I both released at the same time, and the towplane was a memory. Our vertical ascent was staggering – I could see the clouds moving down. Only those that have done this type of flying understand what this is like. There are always a few aviation experiences that stand out and really restore that "this is why I fly" feeling. This was one of them – "Per ardua ad astra".

Mark Miller's turn was next and, since the *Air Dogs* show is presented as a friendly contest between the two hosts, Mark was out to beat the altitude Rooster had achieved. The turbulence was just as strong as on the previous flight so Mark got a real Cowley rotor ride. Once off tow he took the controls and battled with the rotor until we hit the smooth lift of the wave. What a contrast! One second we were in wing bending turbulence and then silence and smooth air. We couldn't have picked a better way to illustrate what wave flying at Cowley often offers glider pilots. Time constraints again intruded and although we climbed close to Rooster's maximum altitude we weren't able to beat it before having to head back for a landing.

There were more camera changes: the one on the top of the tail was relocated behind the wheel and facing forward and the one facing me was mounted behind the release to record the departing tow rope. More interviews and hours of filming the aircraft on the ground with a boom mounted camera brought the on-site portion of the work to a close on the third day of filming.

Neil will be editing more than 40 hours of video down to the 22 minutes required for the *Air Dogs* show. We have great hope that his personal association with wave soaring will generate a final cut that highlights our sport in an exciting and accurate way. The soaring episode will likely be broadcast during the spring of 2009, so keep checking the Discovery Civilization web site at:

<[http://www.discoverycivilization.ca/schedule/series.aspx?timezone=EST&type=series&series_name=air dogs](http://www.discoverycivilization.ca/schedule/series.aspx?timezone=EST&type=series&series_name=air%20dogs)> (note the space between 'air' and 'dogs').

Blind date

first dance with a lady

Trevor Finney, Edmonton SC



MY LAST BLIND DATE was about twenty-five years ago, which sort of gives my age away. Think of the proverbial blind date, and then change the usual scenario to one where “the lady” to accompany you to the dance is more beautiful than you could have imagined. The first dance, after a stumbling start, allows you to lead and to know that this lady is beautiful, charming, and can dance.

I am happily married and have a settled job and a comfortable home. This last long winter had started early, my last flight was at the end of September, and the snow and short gloomy days had taken their toll of my resistance. The only flying that I could do was vicariously by reading articles in the flying magazines and on the internet. My wife watched me pine for the freedom of soaring flight and gracefully encouraged me to do something about it. So, 9 o'clock one evening I placed a call to Quebec. Svein answered the phone and was friendly, informative and patient with me as we talked of the lady who would be my blind date. The next few days drifted into months and were filled with questions and answers. Svein was incredibly helpful with suggestions for her proper care, and often took my calls later in the evening. It was only after the third or fourth time I phoned him that I remembered that I lived in Alberta, and he lived in Quebec ... a two hour time difference, so when I phoned him late Alberta time, it was already much later o'clock in Quebec!

After a huge amount of time spent on Svein's side getting the lady inspected and packed for travel, she arrived in Alberta. She was warmly dressed and securely packed in her trailer but, tantalizingly, she had to be stored until the end of the winter. So near and yet intangible. Eons later the snow melted sufficiently enough that I could draw her gently from her winter cocoon and get her to where we could meet, and tentatively start our formal relationship. The few touches of makeup only made her more desirable.

I am a low hours glider pilot and, although I had spent twenty years flying hang gliders, I had precious few hours on gliders. So when Dick, the CFI, convinced me to rig the lady, I thought it would be to get a good look at her and to see if there were any areas that needed further care.

The sky was strewn with cu; even the students were getting their full half-hour flights. I should have known better with Dick around – no such thing as rigging a glider and then not flying it. So after Dick had flown a quick 280 km out and return, the lady and I took to the dance floor for the first time. It was 19 May 2008, and the lady – my date – was C-GBTZ, a slender, graceful ASW-20 with the competition letters Tango Zulu.

A few final instructions from Dick, and the towline tightened. My heart was pounding in anticipation and excitement as our first dance started and as I hesitatingly took the first step I trod on her foot. We hit a bump and the flap lever dislodged and flew to landing flap setting. By the time I had returned the flap to its proper setting the right wing had dropped and the nose was well off line. Discretion, etc. – I pulled the release and watched the tug become airborne and drift over the end of the runway. Disappointed and a little discouraged, we returned to the start of the runway. Our second start to the dance was more graceful, although not completely smooth on my part. The lady behaved graciously, accepting my stumbling steps on tow until we released at 3000 and she gently allowed me to lead her into our first thermal. We climbed, sometimes haltingly, to 6000 where we left the thermal and I did some “dummy circuits” to see if I would be able to lead her at the end of our first dance.

The first hour of our flight was noisy. Noisy enough initially to cover the loud beating of my heart as I tried to measure up to my partner's graceful turns and lifts. I tried closing the vent, but the noise continued. I tried opening and closing the side window, but the noise persisted. Eventually she allowed me to trim her for straight flight, and I felt that we were dancing in unison. I had the time to take a closer look at my immediate surroundings and noticed that the undercarriage was still down. I retracted the wheel and the noise stopped. There was silence, enhanced by the gentle breath like whispers as she soared through the air. We found another thermal and while steadily rising almost to cloud base I had the time to appreciate my blind date. I could imagine the yaw string multiplied thousands of times being her long flowing auburn hair. Looking out at the wings

⇒ p28

Youth Flight Canada

Peter Musters

DURING THE 2007 SAC ANNUAL GENERAL MEETING a motion was passed to establish a national youth gliding bursary program with SAC funding support. This was based on years of proven success, retention of youth, and the addition of new members hooked for life into our sport from experience in Ontario. It is with great pleasure that I can announce that a nationally coordinated effort through SAC has come to fruition with monetary backing to the tune of \$10,000 per year. This commitment will continue for the next three years and we applaud the founding of the SAC Youth Soaring Scholarship program.

It is a great advance for our sport, excellent for promotion to the thousands of glider pilots under 30 across the country, encouraging to the keenest new members of our sport and a concrete way to enhance Canadian soaring.

This program will offer 20 Youth Soaring Scholarships across Canada, each worth \$1000. SAC will provide \$500 of funding per scholarship and clubs are responsible for providing matching funding. This can be done by donations-in-kind such as reduced membership rates, providing on-site accommodation, etc. By encouraging clubs to make an investment in their future through developing the keenest youth pilots, and complimenting any youth initiatives the club already has, we will all benefit.

The process for submission to the SAC Youth Soaring Scholarship works like this: a youth applicant makes their submission to the club and the club CFI or president will pass their club's submissions to their SAC Zone Director for review. Submissions are due to the club by 31 March and to Zone reps by 7 April. Announcements to successful applicants will be made by the May long weekend. Details are available on the SAC website <www.sac.ca>.

Youth Flight Canada has been offering similar youth scholarships since 2000 and last year we provided 19 bursaries worth between \$500-800 to three clubs. These bursaries require a club to lower its membership fee to \$100, of which YFC pays \$50 and the recipient pays \$50, after which the recipient pays just \$5 per flight in exchange for one hour of volunteer time per flight, with the balance of the flight cost being withdrawn from their bursary. The youth is charged regular member rates for tows and glider rental, so the club earns revenue, a new member, and increases the chance for future retention.

Since starting our bursaries, we have come to identify certain elements that will increase the chance for success of the SAC Youth Soaring Scholarship that is being rolled out for 2009. The best practices we can suggest for the biggest potential impact in our sport includes:

- Selecting youth with a pilot licence, especially those who have had experience in the Air Cadets (who have already demonstrated a passion and a discipline to achieve their licence).
- Using the maximum amount of funding for flying time, rather than membership, initiation fees, etc.
- Requiring that the recipient feel they have earned the privilege to fly and instilling in them the volunteer ethic that keeps gliding clubs flying. One hour of volunteer time to the club for each flight – cutting the grass, painting a wall, washing a plane, cleaning the clubhouse, etc.
- Limiting to two flights the carrying of “friends”, after which the friend pays for the tow.
- Rewarding them, when sufficiently experienced, to become an introductory pilot.
- A signed Code of Conduct, Rights & Responsibilities.
- A plan by the club to offer some assistance to youth for transportation (car pool) and on-site accommodation where possible (camp ground, shared trailer, etc.).
- That the club has a welcoming culture and has members willing to mentor youth in the air and on the ground.
- A critical mass of youth involved in soaring, ie. minimum of three at a small club, five at large clubs.

For clubs which offer the above, the directors of *Youth Flight Canada* YFC will consider making up the difference in matching funding required by SAC to a maximum of \$500. To discuss applying for these grants from *Youth Flight Canada*, have your club president, CFI or other person contact Peter Musters, YFC Executive Director, at (647) 637-8239, or <petermusters@gmail.com>.

Peter Musters



Peter Rawes of Erin shares his time and his Lark with a young lady at York Soaring.

Reinforced safety

Dr. Tony Segal, *Sailplane & Gliding*

a look at new requirements for crashworthy cockpits which should considerably reduce pilot injuries in heavy landings and accidents

MANY GLIDER PILOTS will have seen F1 racing car accidents on TV involving impacts with a wall of tires at 150 mi/h, the driver subsequently being shown to be basically unharmed. Meanwhile, gliding is at the same level of risk as motorcycling. I am pleased to report that after August 2008, all new glider designs in Europe will be required to have a crashworthy cockpit. (These requirements will not be applied retrospectively to older designs as this is considered to be impractical.)

The International Gliding Commission (part of the FAI) held a meeting in March 2006 at which it was decided that, to participate in international gliding competitions, future designs of gliders should have crashworthy (reinforced) cockpits. However, it was reasonably decided that the rebuilding of existing gliders to the new specifications was not possible.

A senior member of the British Gliding Association has pointed out that the decision concerning the redesign of glider cockpits could have serious financial implications for a small glider manufacturer, resulting in the company being taken over by a larger company. Also, the new proposals could be easily avoided by a designer claiming a new design was merely a development of an existing glider design. In civil aviation, the numerous development types of the Boeing 737 airliner are a known example of this procedure.

OSTIV (Organisation Scientifique et Technique Internationale du Vol à Voile) held a meeting in Wiener Neustadt in 1989. OSTIV has as members of its organization glider pilots from most gliding countries in the world, academics

from university departments of aeronautics, and representatives from the glider manufacturers.

At this meeting, it was decided to form a crashworthiness subcommittee to investigate the energy absorbing properties of the glider fuselage in accident situations. Experiments have been carried out on this subject in the USA (Prof. Edward Crawley, MIT), Germany (Prof. Wolf Röger, Fachhochschule Aachen, and Dipl. Ing Martin Sperber, TÜV Rheinland Köln), and in the UK (Dr. Tony Segal, with the help of the RAF Institute of Aviation Medicine, DERA, QuintiQ, and the RAFGSA). Incidentally, I have been invited to observe the experiments carried out in Germany, and Wolf and Martin have both stayed as guests in my home in England.

The rulemaking directorate of EASA (the European Aviation Safety Agency) requested that OSTIV put forward proposals for standards for glider crashworthiness to be considered by EASA. A liaison officer from EASA was appointed, Boudewijn Deuss, who has worked closely with OSTIV and has attended many of the recent crashworthiness subcommittee meetings.

The proposals were placed on the EASA website for three months for consideration by an interested individual or organization. Following consideration of the points raised, the following standards were accepted, namely the certification specifications for sailplanes and powered sailplanes – CS 22. The following notes are mostly taken directly from the CS 22 publications. I have merely corrected some of the errors in English grammar, and added my additional comments where necessary.

Summary The existing figures for emergency landing conditions have been reviewed and revised to reflect the current knowledge for protecting the sailplane occupants against serious injury during emergency (outfield) landings and impacts following recovery from emergency situations close to the ground.

The increased loads also cover the requirements resulting from the introduction of parachute recovery systems which after activation bring the sailplane, or its damaged body, to the ground at a vertical speed of 6-8 m/sec and at a 45° negative pitch angle.

Background At the end of the 1980s increased numbers of fatalities, and serious injury with lasting effects, occurred during emergency landings of sailplanes. Modern brittle composites, as for example carbon fibre resins used in sailplane structure, have greatly increased



Modern brittle materials, such as the carbon fibre used in sailplane structures, have greatly increased static strength but inadequate impact performance.

static strength. On the other hand, they showed inadequate performance on dynamic impact. For example, nose impact following a low height stall during an interrupted winch launch or a high round-out, resulting in the collapse of the cockpit section.

From the statistics of sailplane accidents in Germany during the period 1987-1992 carried out by Martin Sperber, which for the first time included an analysis of damage intensity in different parts of the cockpit, important information was derived. In nearly 80 per cent of accidents (including three nose impact configurations), the most seriously damaged part of the cockpit was that between the control stick and the pilot's seat, which is the part most important for protecting the occupant.

During the 1990s, accident statistics showed a significant increase in fatalities caused by difficulties in bailout after midairs (especially during international competitions). This led to the development of a Glider Parachute Recovery System, based on the research by Wolf Röger. After activation by the pilot, the glider with the occupant remaining in the cockpit is lowered safely. However, modern crashworthy cockpits are required to prevent injury to the pilot on the subsequent impact of the glider with the ground.

Stall speeds of sailplanes have increased to an upper limit of 80-90 km/h, and the maximum mass often approaches the upper limit of 750-850 kg. The resulting increase in kinetic energy is caused by an introduction of powered sailplanes and the updating of sporting competition rules.

Impact energy absorption For maximum protection of the occupants in survivable crash landings, firstly the main part of the cockpit should constitute a strong cage (as defined). The forward part of the cockpit should then be sufficiently weaker for it to yield before the main part, but stiff enough for it to absorb considerable energy in so yielding. Energy absorbing seats, seat cushions or seat mountings constitute another means of improving safety by reducing the load on the occupant's spine in a crash, and when accidentally landing with a retracted wheel. The required load levels have been chosen partly on medical grounds, and partly in consideration of what is currently practicable.

Protection of the legs For maximum protection of the legs during the deformation of the front part of the cockpit, the feet should have adequate space to move slightly backwards together, without twisting or rocking.

General design The conditions specified are considered to be the most representative of the wide envelope of possible crash loads and impact directions. However the design should be such that the strength of the cockpit is not unduly sensitive to load direction in pitch or yaw.

Conventional semi-reclining seating In this case it's sufficient to demonstrate that the main part of the cockpit, extending at least from the front control pedal (adjusted to the intermediate longitudinal position) to the rearmost headrest mounting or the wing attachment section (whichever is furthest aft), including the harness attachments, meets the requirements.

Showing compliance Dynamic tests are not mandatory. Static tests or calculation methods are acceptable means of compliance. If calculation methods are solely used, they should be verified by recalculation of static tests data of structures of similar design. The calculation methods should take into account margins against variation in material properties, such as tensile or compressive strength, and margins against stability limits such as buckling of the canopy sill.

Structural Requirements for Emergency Landing Conditions

Cockpit structure This should withstand the inertial loads due to the following accelerations. These accelerations have been increased as follows:

upwards	4.5-7.5 g
forwards	9-15 g
sideways	3-6 g
downwards	4.5-9 g

The cockpit should withstand an ultimate load of nine times the weight of the sailplane (increased from six times the weight) acting rearward and upward at the angle of 45° to the longitudinal axis of the sailplane, and sideways at an angle of 5° acting on the forward position of the fuselage at a suitable point not behind the pedals. The supporting structure must be designed to restrain, under the above loads, each item of mass that could injure an occupant if it came loose in a crash landing.

Seats and safety harness Each seat and safety harness installation must be designed to give each occupant every reasonable chance of escaping serious injury under the conditions stated above. "Every reasonable chance" expresses the limited possibility to determine the quantitative probability of injury in the accident process. This is affected by many inputs, such as the physical height, weight, age, and sex of the occupant, and the specific characteristics in the accident.

Baggage compartment Means must be provided to protect occupants from injuries by movement of the content of the baggage compartments under a forward acceleration of 15g (increased from 9g).

Conclusion The new requirements are practical, and inexpensive if implemented in the manufacturing stage. They should considerably improve the protection of the pilot from injury in heavy landings and accidents. ❖

Dr. Segal qualified in medicine in 1956. He was sent solo the same year at Lasham (where he still flies) by Derek Piggott. He has 600 hours in gliders and 150 hours in power. He was a GP for 30 years and, on retirement, was a student on the six-month Diploma Course at the RAF Institute of Aviation Medicine. This included experience of hypoxia, high g, and helicopter dunker training. He has carried out studies at Farnborough for 20 years on pilot spinal injury, glider cockpit crashworthiness, and seat harness and undercarriage design. He is the medical adviser to the international OSTIV Sailplane Development Panel.

Samba et Lambada - la danse du futur

Jean Richard, Montréal SC



Terry Beasley

PAR UN CHAUD ET HUMIDE DIMANCHE DE JUIN, sans faire trop de bruit, deux aéronefs résolument modernes se posent sur l'aérodrome de Hawkesbury. But de la visite : faire connaître aux membres du MSC les qualités remorqueur du Samba et celles planeur du Lambada.

Le Samba remorqueur

Plusieurs étaient sceptiques : un avion aussi léger avec seulement 75 kW de puissance derrière l'hélice pouvait-il remorquer un planeur ? La réponse est oui ! Quelques remorqués ont été faits avec satisfaction. Avec une piste plutôt molle, une végétation dense, printemps très humide aidant, et seulement 500 mètres de piste avec obstacles au bout, on a joué de prudence et on s'est limité aux monoplaces. Mais il est clair qu'avec quelques mètres de plus et une surface plus dure, même le lourdeau Twin Astir aurait pu décoller derrière cet avion.

Un tel avion peut-il remplacer trois vieux Bird Dog ? On se pose la question au sein du club. Plusieurs écoles de pensée s'affrontent. Non répondent ceux qui croient que le futur n'est que le passé qui se perpétue. Oui répondent ceux qui croient que l'explosion du prix du pétrole, la croissance exponentielle des coûts d'entretien des avions et enfin, les préoccupations environnementales viendront

tôt ou tard nous acculer au pied du mur si on ne change pas notre façon de faire. Quant à ceux qui rêvent d'un grand projet de revitalisation du club, le meilleur scénario serait peut-être le passage au treuil, doublé d'un remorqueur léger comme le Samba.

Le Lambada

Bien que le remplacement des avions remorqueurs préoccupe de plus en plus les dirigeants du club, la baisse sensible du niveau d'activité de l'école ne les laisse pas tous indifférents. La hausse rapide du coût des remorqués est une des causes de cette baisse, mais il y a plus : notre façon peu efficace de faire de l'école ne correspond plus aux changements culturels qui sont ceux de notre société. C'est pourquoi le Lambada n'est pas passé inaperçu.

Le motoplaneur ne serait-il pas un outil intéressant à ajouter à un club pour améliorer son efficacité et réduire les coûts ? Plusieurs clubs européens nous le démontrent : la réponse est oui. Côté coûts, le temps moteur requis pour un décollage et une ascension seront plus économiques sur un motoplaneur qu'en remorqué derrière un avion. Côté efficacité, un motoplaneur utilisé en école tournera beaucoup plus efficacement qu'un planeur conventionnel aligné derrière une douzaine ➡ **p27**



Terry Beasley

Le premier Pégase au Canada

Très long comme processus, mais quelle superbe machine!

Martin Camiré, AVV Champlain

L'AVENTURE COMMENCE À L'ÉTÉ 2007. Deux pilotes de l'AVV Champlain (Christian Laliberté et moi-même) se cherchent un planeur, et voient une possibilité de copropriété... en autant qu'ils puissent trouver chaussure à leur pied... à tous les deux ! À ce moment, Martin commençait à regarder du côté de l'Ontario, pour un Phoebe C, planeur de 17 mètres construit en 1969. Christian, de son côté, commençait déjà à recueillir de l'information pour un Pégase disponible dans l'Ouest américain...

Le Pégase a été manufacturé par Centrair, en France, qui fabriquait des ASW-20 sous licence au début des années 80. Ils ont donc utilisé cet appareil comme design de base pour leur propre planeur. Le fuselage est à peu de choses près identique, mais le profil de l'aile a été complètement redessiné. Le résultat est un planeur de classe standard, avec des performances intéressantes (comparable au LS-4), et qui se pilote magnifiquement bien. D'ailleurs, plusieurs clubs français l'utilisent comme planeur-école pour le vol-voyage. Plusieurs variantes ont été fabriquées:

train fixe versus train rétractable, avec winglets amovibles, longeron en fibre de carbone, capacité de ballast augmentée, ainsi qu'une version avec un profil légèrement modifié. Plus tard, le Pégase-90 a fait son apparition, avec majoritairement des changements à l'esthétique du cockpit. Avantage principal en ce qui nous concerne : le cockpit est très spacieux, et Christian peut y être confortable, le malgré ses 6'2" et 200 lbs ! Donc, c'est un go pour étudier un peu plus cette possibilité.

Problème principal : pas de certificat de type au Canada pour le Pégase. Bon, on ne se laisse pas décourager... On commence à ramasser les infos, et on débute les démarches auprès de Transports Canada. Le planeur dans l'Ouest se vend assez vite, mais quelques autres sont disponibles aux États-Unis. Il faut mentionner que, aux États-Unis, certaines restrictions s'appliquent à ce planeur, ce qui n'est pas le cas ailleurs dans le monde. Oh bonheur, Transports Canada nous autorise à importer le planeur, en tant que planeur français (donc, sans les restrictions américaines). En fait, si le planeur est importé, il sera forcément considéré comme français, car pour obtenir un certificat spécial de navigabilité, c'est le pays d'origine de l'appareil qui est pris en compte.

Bon, une petite visite s'impose donc, pour aller voir de plus près un Pégase C101-AP qui se trouve dans le New Hampshire. Comme on est maintenant à l'automne, la saison tire à sa fin, alors nous n'espérons pas acheter un planeur pour cette année... mais 3 heures de route, c'est la porte à côté, alors pourquoi pas ?! Et bien, c'était trop simple : entre-temps, le vendeur est allé porter son planeur chez Gehrlein, en Pennsylvanie, pour faire faire des réparations mineures à la finition. Les trois heures de route se transforment donc en neuf. Ça complique un peu les choses. Arrive donc novembre, et on peut finalement se taper l'aller-retour en Pennsylvanie. Le trajet s'est superbement bien passé, peut-être un peu trop même, car 30 minutes avant d'arriver, c'est une tempête de neige qui s'abat sur nous ! Donc, pas question de riguer le planeur sous la neige. Surtout que personne sur place n'est propriétaire de l'appareil ! Jay Gehrlein a été très gentil ; il nous a donné de son temps, et il a reculé la remorque dans l'entrée d'un de ses garages. On n'a pas pu riguer, et l'éclairage n'était pas idéal, mais on a quand même pu voir le planeur de près.

Au retour, on continue de ramasser toute la documentation dont on aura besoin pour importer le planeur. Une fois satisfaits (et relativement confiants de ne pas acheter un jouet qu'on ne pourra pas utiliser), on fait ➡ p27



Carol King

The Pegasus-101 is a Standard Class glider built in the 80s by Centrair, a French company that built ASW-20s under licence. When Centrair designed their own glider, they kept the fuselage of the ASW-20 (with minor modifications), but redesigned the wings completely. A new airfoil was developed, which gave good handling characteristics with honest performance. The Pegasus is said to be very close to the LS-4 performance. It is very comfortable, and its smooth handling make it a good club glider, often used for cross-country training in Europe. Many versions were made; fixed vs retractable gear, with winglets, carbon fibre main spar, and one version with a slightly modified profile. Finally, the Pegasus-90 appeared, which included mainly some cosmetic changes to the cockpit. The Pegasus was sold in many countries around the world, but mainly in Europe. A couple of them are flying in USA.

SAC eastern instructor course 4-8 Aug – Gatineau Gliding Club

A successful SAC instructor course was held this summer at GGC led by the CFI of York Soaring – Richard Sawyer. Despite weather that at times seemed uncooperative, a flyable window was found every day and we managed to get through all required exercises. Thank you Richard for running an excellent and informative course.

Attending – left to right: Arvind Jain (MSC), Martin Sanderse (York), Richard Sawyer (York) – Instructor, Andrew Doepner (GGC).



OSTIV accident review

Older pilots are becoming involved in more accidents. Launch rates are decreasing in some countries so that the increasing accident rate is a major concern. Anonymous reporting, started in one country in 2007, gave a large increase in data that has helped problem areas. Pilot attitude, flight planning, rigging, ground-related incidents/accidents, in-flight near collisions/misses, and stalls/spins, airbrakes opening on takeoff, props hitting the ground on landing in motor gliders and engine mismanagement are concerns. FLARM is increasingly being installed in many gliders in countries such as Germany, Switzerland and Belgium.

Analysis of data going back 20 years shows clear indications that six categories of accidents are caused by six hazards:

- Collision – lookout, technology
- Winch launches – awareness of hazards, technique
- Inadvertent stalling/spinning – mountain flying, distractions (aviate) – highest fatality numbers other than winching
- Field landings – pick a field early; is the OLC a factor that pushes a pilot beyond his competence?
- Undershoot, landing – learn to land
- Integrity – rigging correctly

Instructor training is considered to be a problem. A comparison with power instructing in one major country showed that glider accident rates are much higher per participant. Are we the same in Canada? In spite of the good infrastructure for training glider pilots in most countries, panel members felt that training standards generally should be improved, and more priority should be given to instructor refresher training and should include human factors; some countries are already doing this. The panel also concluded that emergency and abnormal situations should be covered more thoroughly before a pilot is sent solo. Reporting generally appears adequate in most countries, but could be improved to provide better feedback of problem areas, so that lessons learned can be developed and applied more thoroughly.

Crashworthiness of glider cockpits

The Sailplane Development Panel has been active in recent years in developing a system of reporting data from survivable accidents that could be used to improve cockpit safety design. CS-22, the new airworthiness standard (was JAR-22), has been modified in recent years to require improved pilot restraints and associated cockpit strengthening. Modern gliders are now much stronger and provide better crash protection. *See article on the new requirements on p18.* Examples of crashed gliders provided dramatic proof that the modern cockpits are giving better pilot protection. However, data is still required in the ongoing work by the SDP. All pilots are asked to provide this data; contact Dan Cook or Ian Oldaker for the needed forms.

Safety, Quality Assurance, and Auditing

Most countries are running safety programs that include follow-up auditing. In one, new instructors are required to take an exam and flight check from two examiners who also audit the club's safety program on a two-year cycle. They used the Canadian audit system for developing the program. Other countries include club surveys with 100 questions, a report and safety seminar, to a requirement for all instructors to have a refresher course or flight checks every two or three years. Safety workshops, considered very successful, are widespread. In another country an instructor carries out a biennial inspection and flight checks at a club as part of an agreement with the National Civil Aviation Authority. One country, as part of its ongoing safety program, performs audits of every club on a 4-year cycle to check on different topics, such as maintenance or training.

The safety program is being continued, with a new safety seminar being launched this winter to be presented to all clubs over the next three years.

Ian Oldaker

expiration of current TC aviation licences and medical certificates.

All aviation licences will expire in the near future and be replaced by a new aviation document book. This new document will have a photograph and be similar in appearance to the Canadian passport. To apply, you must fill out the form 26-0726 and send it to your TC Regional office. This document will be free, the only cost will be for getting a passport photo taken by a professional photographer. The new document will contain all licences, permits, certificates and medical annotation. This book will be valid for five years and be better for international security.

The first to have their aviation documents replaced are airline pilots and commercial pilots. They have until 31 March 2009 before their current licence expires. Private pilots can apply for the new documents during the 2009 year before their current licence expires. Glider pilots may apply for the new documents during the 2010 year before their current licence expires. Those with more than one licence should make their request for replacement based on the earliest date for the renewal of their licence to avoid expiration. Visit Transport Canada for the official version and for more details.

language test needed to obtain the new glider pilot licence

As of March 2008, any applicant for the new Canadian licence must provide documented proof of language competence with their application. The English language proficiency on international flights for the airplane and helicopter pilot licence is a new ICAO requirement. In the case of recreational licences such as glider pilot, ICAO only recommended an English proficiency. Transport Canada decided to make it a requirement for all categories of licences in Canada. TC also accepts the French language proficiency for those who use their licence only in Canada.

All new licence applicants must pass an oral examination with a delegated examiner. The market price is about \$60 or less per language test. The oral telephone examination will take approximately 25 minutes and includes 20 questions. If you pass only at an "operational level", you must retake the exam every five years. If you succeed with "expert level", your

competence is valid for life and requires no subsequent validation.

Anyone who had a licence before March 2008 has been "grandfathered" based on the default language of their past correspondence with Transport Canada.

Dan Cook comments

Yes, the anglophone pilot in Calgary will have to prove he speaks English with a test result (examiners on TC web site) as well as proving age, etc. I am not happy about this as I feel we were blindsided despite TC telling me they went through the CARAC process. We discovered this at a francophone instructor seminar for glider pilots where the TC spokesman mentioned it. Next was a post on the Roundtable that it was happening. Ian Grant spoke to TC and was told it would not apply to the glider pilot licence. Next came the issue of an Aviation Circular notifying that the CARs were being changed and the new rules would apply nationally and the GPL was included. I have posted all info in the FT&SC blog under Safety on the Roundtable with the links to the TC websites. New GPL applicants will have to have documents to prove they speak English or French. This proficiency will be displayed on the new power licence in 2009 or 2010 for the GPL (the current licence does not have language capability displayed on it).

expiration des licences et médicaux dans la forme actuelle

Toutes les licences et permis expireront dans un avenir rapproché. Ils devront être remplacés sans frais par nouveau carnet de documents d'aviation Canadien. Ce nouveau document avec photo a l'apparence similaire à un passeport. Pour en faire la demande, il faut remplir le formulaire no 26-0726 et l'envoyer au bureau régional de Transports Canada (TC). L'émission de ce document sera sans frais et le seul montant à défrayer sera la prise de photo de type passeport prise par un photographe professionnel. Ce carnet contiendra toutes les licences, permis, annotation et certificats médicaux. Ce carnet plus sécuritaire sera valide pour cinq ans.

Les premiers à remplacer leur carnet de documents d'aviation sont les pilotes de ligne et les pilotes professionnels. Ils ont jusqu'au 31 mars 2009 avant que leur licence actuelle expire. À partir du 1er janvier 2009 ce sera au tour des pilotes privés de faire la demande. Ils auront jusqu'au 31 décembre 2009 avant que leur licence actuelle expire. Les pilotes de planeur pourront faire leur demande à partir du 1er janvier 2010. Ils auront jusqu'au 31 décembre 2010 avant que leur licence actuelle expire.

Ceux qui ont plus d'une licence devraient faire leur demande de remplacement en se basant sur la date la plus hâtive de renouvellement d'une de leur licence, afin d'éviter l'expiration. Visitez le site de TC pour la version officielle et pour plus de détails.

nouvelle exigence pour l'obtention d'une nouvelle licence de pilote de planeur

Depuis le mars 2008, tout nouvelle demande de licence Canadienne doit être accompagnée d'une preuve de compétence linguistique. C'est une nouvelle exigence de l'OACI d'avoir la compétence linguistique anglophone pour les licences de pilote d'avion et d'hélicoptère lors des vols internationaux. Dans le cas des licences récréatives comme celle de pilote de planeur, l'OACI le recommande seulement. Transports Canada a décidé d'en faire une exigence pour toutes les catégories de permis et de licences canadiennes. Transports Canada accepte également la compétence linguistique française pour ceux qui utiliseront leur licence au Canada.

Tout nouveau demandeur de licence doit subir un examen oral téléphonique auprès d'un examinateur délégué. Le prix du marché est d'environ 60\$ ou moins par test de langue. L'examen oral d'une durée approximative de 25 minutes et comporte 20 questions. Si vous réussissez avec la cote : fonctionnel, vous devrez repasser l'examen dans 5 ans. Si vous réussissez avec la cote : expert, votre compétence est valide à vie et ne requiert aucune validation subséquente.

Tous ceux qui avaient une licence avant mars 2008 ont obtenu par défaut la langue de correspondance avec TC en tant que compétence linguistique expert. Si votre langue de correspondance est française et voulez obtenir la compétence anglaise, vous n'avez qu'à communiquer avec un bureau régional de TC, licence du personnel pour subir un test de compétence linguistique au téléphone sans frais.

Sylvain Bourque,

Examinateur linguistique aviation, Personne autorisé - émission licences de pilote planeur

the positive control check

It seems to me that asking a person to hold the control surface tight while you, the pilot, try to move the stick is "back asswards" for two (maybe three) reasons:

1. It is easy to unduly stress the control system linkages, attach points, or hinges when hauling on the trailing edge of a control surface because of the large moment arms

involved and the fact that the two persons doing the check are resisting each other through the system. The connectedness of the system, not its ultimate strength, is what one is supposed to be testing.

2. It is still possible for the control surface (especially the elevator) to move in the correct sense, in the direction that the linkages push rather than pull, even if the control circuit is disconnected.

Wouldn't a better way be to have a person on the stick end just hold it stationary while the pilot gently attempts to move the trailing edge of the control surface with a fairly light, rapid back and forth action. Doing this will show that there is a connection (or could cause a partial connection to come loose).

The further third advantage is that the total free play in the control circuit also becomes quite evident – in itself an indicator of the health of the control system.

Tony Burton

Dan responds: I think you have correctly identified what we are trying to achieve in the positive control check – to find out if the control linkages have been properly connected due to reassembly or maintenance.

I concur, "hauling" on the trailing edge isn't appropriate for the reasons stated. I show instructors to teach their students that the check is done by having a helper hold the control surface between the flat hands so that the person doing the inspection (a competent person) can move the control column gently to feel if the controls are positively connected.

Mechanically and from a structural design perspective, the control leverage system is engineered to move the control surface with the control stick, not vice versa. So care must be taken not to force the controls with any pressure – push rods or bell cranks can be bent, pressure fittings loosened or control cables stretched or damaged. Any forcing of the control surfaces up or down by hand can damage them due to their often delicate construction as they are not designed to be moved this way.

As pointed out, the play in the system becomes apparent also and an AME should investigate any excessive play. Unfortunately, experience is the guide to excessive play as it varies with glider type/age. The big indicator will be noticeable changes between inspections of the same aircraft. When in doubt, I always suggest to students and new pilots to check with an instructor or your AME.

regarding flying furniture...

You never know what will show up on a club e-mail thread when the winter blahs begin. This one started with getting a Condor soaring simulation session going – then:

Gerald: There's a reason I fly a 30 year old glider – all the controls are analog ...

Greg: ... as to wood gliders – friends don't let friends fly furniture.

Dave: Tin gliders like the Blanik L-13 and L-33 suffer irreversible metal fatigue, and haven't any sofa cushions to soften the blow as they disintegrate around you. "Glass" ships get cracks on (or rather through) their wings, not fatal problems if the wings are not flexed too much or are repaired for most of the cost of a new glider. And you can't disguise the damage by painting them any cheery colour.

The world's oldest, best and largest glider maker started as a furniture maker at the base of the Wasserkuppe. After several pilots had crashed their homemade gliders and brought them down the hill to be repaired, the factory switched over to making wood gliders. Today the company, Schleicher, produces a glider called the ASK-21.

I'm quite sure their people would have made it out of wood had the cost of training and keeping superb cabinet makers not become prohibitive. Lacking sufficient people of the necessary calibre, they do the best they can with plastic. Sadly, most of their customers accept this shiny but shoddy chemical brew as "state of the art".

If Greg stays with the sport for a while, he'll almost certainly find himself out-thermalled handily by a wooden sofa at some time. And if he's lucky, he may himself experience the unique joy of flying a wooden ship.

Peter: In my student days I did have an old couch that took a short flight off the balcony of a three storey walk-up. Unmanned of course. As I remember it though, not much of a flare on landing ...

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Ventus tested with jet sustainer

On 23 April 2008, Swen Lehner flew Werner Meuser's Ventus-2cxa for the first time with a jet sustainer unit. He began the first tests for air starting characteristics and climb values.

The cockpit area of the smaller Ventus A fuselage was extended to allow pilots up to 1.90m body length to fit. The extra 2 cm width and the increased leg space are very effective. However, this reduced the volume in the fuselage behind the seat and restricted the space available for a sustainer engine, and the only reasonable solution was the much smaller Olympus jet from the AMT company. The jet control unit is designed by Martin Käppeler and is very easy to operate. The first flights achieved a climb rate of 0.6–0.7 m/sec at full power. However, we are now beginning to test this system and there will be more modifications necessary to get to the production stage for everyday use.

The jet has a fuel consumption of 0.6–0.8 litres per minute, so it was necessary to install three tanks in the prototype, an 8 litre fuselage tank and two 10 litre wing tanks. Presumably, total engine running time will be shorter as compared with the conventional turbo system.

from Schempp-Hirth

the Cu Nim season

Cu Nim started the season very optimistically with a flurry of activity on the e-mail discussion group, even before the first check-flight of the year. A number of pilots were discussing grand plans for a 400+ km 'Dirty Downwind Dash' to John Gruber's parents' farm in Saskatchewan. The weather didn't cooperate though, and the flight wasn't achieved; the planning is not wasted however – there is always next year.

Our old Ford tractor is up for sale if anyone is interested – we purchased a brand new Mahindra last winter. It has given hours of entertainment to our would-be farmers, especially on the wet days at the beginning of the season, but mainly has made cutting the runway grass much faster.

Flying began slowly due to the damp spring, but improved throughout the season. There were only a few good cross-country weekend days, and Tony Burton was able to take best advantage of one of them to fly a Canadian Club class 300 km FAI triangle speed record on 4 May in his Russia.

Flying is wrapping up as I write this report at the end of October. As a result, although our income was below budget at the middle of the season, it has improved in the second half. Cu Nim's glider fleet consists of three L-13s, an L-33 Solo and a Jantar.

Our members supported the Cowley camps, both by attending and by providing equipment. A notable Cowley flight was made by our newly-licensed Steve Hogg to 26,000 feet in the Jantar – no flight recorder on board though – too bad.

Phil Stade deserves special mention for hosting the Discovery Civilization "Air Dogs" TV team during the Fall camp (*more details in his story on page 14*). We look forward to seeing the wave flying footage that they took. Attending members also thoroughly enjoyed the contest at North Battleford (*see the results on the next page*), and congratulations to Al Stirling for leading the field in the Club class.

An unfortunate incident occurred on the last day of the Fall Cowley camp. Cu Nim's Scout towplane was overturned past the end of runway 21. The towpilot was unhurt, but extensive damage was done to the aircraft. Both wings would need to be replaced with



Al Stirling (left), Club class winner of the Western Canadian Soaring Contest, is presented with the ASC Bruce trophy by CD Phil Stade.

2008 Western Canada Soaring Contest

				Jul 1		Jun 30		Jun 28	
	<i>Pts</i>	<i>Name</i>	<i>Glider</i>	<i>Pos</i>	<i>Pts</i>	<i>Pos</i>	<i>Pts</i>	<i>Pos</i>	<i>Pts</i>
1	2386	Al Stirling	ASW-20B	1	944	1	628	1	814
2	1631	Frank Cwikla	ASW-15B	6	710	3	451	8	470
3	1576	Phil Stade	Jantar	4	732	6	298	7	546
4	1510	John Toles	L-33 Solo	2	808	4	327	12	375
5	1483	Ron Cattaruzza	SZD-59 Acro	9	615	7	222	5	646
6	1441	Roy Eichendorf	Open Cirrus	3	771	10	0	3	670
7	1412	Dowdeswell/Westphal	DG-400	11	171	2	564	2	677
8	1370	John Mulder	Genesis 2	5	711	10	0	4	659
9	1343	Hank Hees	Apis	6	710	10	0	6	633
10	1279	Carol Mulder	Jantar	7	709	9	108	9	462
11	1039	Henry Wyatt	Ka6E	8	676	10	0	13	363
12	1023	Walter Mueller	Open Cirrus	10	256	5	312	10	455
13	400	Gary Hill	ASW-15B	12	0	10	0	11	400
14	385	Deschamps/Radder	Dart	12	0	8	135	14	250

the metal spar version, and initial estimates put the repair costs at close to its insured value. It has not been determined yet if the aircraft will be repaired or written off.

On a more positive note, Cu Nim has decided to purchase a brand new ASK-21. This will be used as a cross-country trainer and also to provide flying to people with disabilities. The aircraft has been ordered with hand controls in both cockpits to allow disabled students to progress to rear seat flying and to eventually become instructors. Cu Nim is excited to be working with Peter Musters to become the fifth chapter of *Freedom's Wings Canada*, an organization that provides the opportunity to fly for people with disabilities. Peter has been successful in raising money for disabled flying through government grants, and he is assisting Cu Nim to do the same. We hope to raise at least \$90K towards the cost of the ASK-21 through grants, assisted by selling one of our Blaniks.

As always, it takes many hardworking volunteers to run a gliding club. However, I would like to highlight the efforts of a few people in no particular order:

- Kerry Stevenson for setting up the very successful glider exhibit with Darren Clark and Tony Burton at the Alberta International Air Show at Lethbridge.
- David Morgan for instructing, towing, and being the general treasurer, repairman, and just about everything else.
- Peter Neary for once again allowing us the use of his high performance IS-32 Lark.
- Phil Stade for manning the flight booking phone and scheduling student and introductory flights all season.
- Al Parker and Jean Claude (and all their assistants) for the extensive structural upgrade to the small hangar.

As we go into winter, we have many plans to keep everybody busy. Some of these are to look into the practical issues in lengthening our main runway to support winching, and to come up with a framework in which private and club hangars could be built. The students and instructors will also be busy as we are hosting a ground school during November and December. Cu Nim continues to thrive and we are all looking forward to a busy and exciting 2009 season.

Derek Jones, secretary

new nickel metal hydride glider batteries on market

There is an ad now in *Sailplane & Gliding* magazine for new nickel metal hydride (NMH) 12 volt batteries manufactured by *ATSI Aviation* designed to replace the conventional lead gel acid batteries typically used in sailplanes. The "Lynx" is a 10Ah direct replacement for the standard 7Ah 12V gel cell battery, and the "Puma" is a 14Ah version with the same footprint but taller. Integral electronics provide for the delivery of maximum output up to the point of total discharge and there is a built-in thermal cutout, reverse current protection, and self-setting internal fuse.

Unlike gel cells, the NMH batteries do not suffer any loss of performance even after many deep discharge cycles or storage while discharged. They will operate over a temperature range of +60 to -20°C. They have dedicated charging units that can charge the battery in less than 6 hours from flat to full. The batteries are capable of more than 600 recharges, making them extremely cost effective. Go to <www.atsipowermanagement.co.uk/atsiaviation.html>. No info available yet regarding a Canadian or US distributor.

rules are there to change

Here is some idle rambling by "Platypus" from a recent *"Sailplane & Gliding"* on the practicality of "worst-day-out" scoring. It has been experimented with here and there, even once in our Western Interprovincial competition in 1989 ... It always seemed to be a simple and straightforward solution to all the fixes for fairness that infest today's scoring formulas. However, it's often in the logical "corners" of the rules that problems arise, though this one does seem unlikely, given the skills of today's competitors ...

You would only choose to curl up in bed with the copy of a rule book if you were a total nerd or desperately seeking a cure for insomnia. Though I suppose a big, thick rule book would repay study if you were a lawyer-pilot looking for loopholes and Machiavellian ways to gain an advantage. But the way in which rules in any sport change over time, or new rules are introduced, can be quite absorbing. The offside rule in soccer is a good example. (American readers can look it up on Wikipedia, which in a few thousand well-chosen words explains it all.)

A rule that was applied in some gliding contests back in the 1950s and 1960s was the one that made you drop your worst day after five days. (George Moffat says this rule derives from dinghy racing.) In 1961 – the first time I had a glider to myself for a whole contest – I was in the lead from Day 2 to Day 5. On the morning of Day 6 I found I was compelled by the rules to drop my worst score, which was 300 points, and thus dropped from leader to third place; the final winner of the contest and number two dropped exactly zero points, each having landed out near the site on one day.

I was less than grunted, I have to admit; I felt I was being brutally punished for my consistency. Nearly half a century having elapsed since that big silver pot was snatched from my grasp, I have mellowed somewhat.

Imagine a contest between two pilots: press-on Victoria and careful Prudence. Victoria wins three days but blows it on day four. This costs her the competition, while careful Prudence is a model of consistency and takes the crown. The tortoise beats the hare:

Day	Victoria	Prudence
1	1000	780
2	500	740
3	1000	700
4	0	810
5	950	830
6	1000	730
total	4450	4590

next page

But whom would you choose to represent the country in the World Championships?

Of the two, Vicky has what it takes to become World Champion, especially if she gets some help from her team to avoid disaster. Pru may always end up in the top five, but she will never win a major international competition unless all her serious rivals blow up, which is not likely. Victoria is the one with the fire in her, er, belly. It is also possible that Pru is a bit of a leech; not so Vicky. Vicky would have won handily if they had both been made to drop their worst day, since it would not have affected her final score.

So the old "drop-your-worst-day" rule could be said to have had the right objective, even if it was as crude as a blunt axe. Later rule changes (which with the help of computers can make more subtle gradations in scores) have striven to be more favourable to people

who take risks and fly fast, by weighting speed points to the square of the speed. Other rule books, mainly on the Continent, have given zero speed points to anybody who goes at only half the winner's speed.

However, I can't think of any cases under modern rules where someone has scored a zero on a 1000-point competition day and then fought back to win a major contest.

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Letters ...

from page 5

	Cost(\$K)	OLC	BGA	SSA	IGC Club
Mosquito	~30	108	98	0.97	1.07
SZD-55-1	~60	108	98	0.941	1.08
LS-8	~80	108	100	0.925	n/a

Some people in the sport are "fortunate" in that they have a supportive spouse, the kids are gone, they're debt-free and perhaps have made astute career/investment decisions. If they choose to upgrade they can financially do it. However, I think we need to remember that our biggest potential racing population doesn't have such financial flexibility.

To be competitive in the FAI classes (Open, 18m, 15m and Standard) the latest-and-greatest hardware is necessary. The easy handling and excellent performance makes longer distances and faster times a reality. Having said that, I would argue that less performance and handling could make a better pilot, since getting around the course fast is more critical of good airmanship. If this is true, you could take a superior Club class pilot and put him in a supership and expect good results. But conversely, racing Club class directly against the latest performance ships provides opportunity for disparity – in spite of all the best decisions, the Club ship might not make it across a weak or dead zone, while the high performance ship might; let's say an ASW-19 against an ASG-29 where the pilots are equivalent.

I'm convinced that to have a successful racing future in Canada, we need to develop the middle class. If soaring is a rich man's sport then we are not tapping the pool of potential champions. If we truly want to develop the sport, we need to find a way to include more aircraft, more pilots, and develop a program that reasonably challenges them in more head-to-head contests.

One way to foster this group might be to create a point system to encourage pilots to participate in head-to-head competition and reward for the experience gained. Points could be weighted for the level of contest: National, Provincial, Regional, inter-club and maybe even club level. We could create a Ladder list that shows who is in what position and generates competition for improvement. Improvement comes with more contests and better performance in the contest. For most of us the results themselves would be the goal, similar to OLC, but head-to-head. In a future iteration, we could use it for generating World Team points, where we find a way to put some deserving pilots into the cockpits of high-end ships for World competition. That's a cool thought.

Derek Mackie

free flight 1/09

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de planeurs monoplaces sur la ligne de départ. La mise en œuvre d'un motoplaneur sera plus rapide que celle d'un planeur conventionnel et d'un avion remorqueur. Enfin, pour ces jours de semaine où aucun pilote remorqueur n'est disponible, l'autonomie d'un motoplaneur sera particulièrement appréciée de l'élève et de son instructeur.

Quel choix s'offre à un club qui voudrait acheter un motoplaneur ? Il y a d'abord les bois et toile, SF28 et SF25 (ce dernier plus répandu et encore en production), aux performances très modestes, au pilotage adéquat, assez proches du planeur pour être utilisés en école. La construction bois et toile exige un abri bien sec, et un entretien suivi. Ceux disponibles sur le marché de l'occasion sont hélas souvent équipés de moteurs Limbach, plutôt capricieux.

Puis il y a ces motoplaneurs en composites des années 80, soit les Grob 109, Dimona, Super Dimona et Ximango (dérivé du RF10). Seuls les Super Dimona et Ximango sont encore en production. Un peu plus performants que les bois et toiles, ces motoplaneurs ont toutefois le défaut d'être lourds. Leurs performances voisinent celles d'un ASK13 en transition. En montée, il faut de généreuses ascendances. Ils restent malgré tout utilisables en école. Et leur robustesse sera toujours un atout en usage club.

Et pour qui n'aime ni les bois et toile, ni la lourdeur des appareils de la deuxième génération, il y a les motoplaneurs et les planeurs autonomes du XXI^e siècle, poids plume et modernes. Appartiennent à cette génération le Sinus et le Lambada comme motoplaneurs

et le Taurus comme planeur autonome. Côté motoplaneurs, le Sinus est quelque peu handicapé par son aile haute, réduisant la visibilité. Il reste donc le Lambada. Côté planeurs autonomes, nous reparlerons éventuellement du Taurus, un appareil prometteur.

Un vol en Lambada, version 15 mètres, a tout pour séduire et convaincre. Tout d'abord, la mise en marche est très simple, grâce au moteur Rotax 912 (le 912S est également disponible, mais sera inutile pour qui ne veut pas utiliser le Lambada comme remorqueur). La circulation au sol est sans problème, même s'il n'y a pas de freins différentiels. Les décollages sont courts. Là où votre biplace traditionnel quitterait le sol derrière un Bird Dog, vous êtes déjà à une bonne hauteur, en route vers les cumulus. En montée, l'aiguille du vario ira se positionner à mi-chemin entre celle d'un remorqué traditionnel et d'une treuillée. Et cette montée aura consommé à peine plus de pétrole qu'une treuillée et, évidemment, beaucoup moins que derrière un gourmand Bird Dog.

Même à pleine puissance et sans casque, le niveau sonore dans l'habitacle est peu dérangement. Du sol, c'est la surprise : plusieurs décibels de moins qu'un avion conventionnel. Les voisins vont sûrement l'apprécier.

Après une rapide montée, on ferme le moteur, une manœuvre très simple (on réduit la puissance, on coupe le contact et on met l'hélice en drapeau). Le remettre en marche est aussi simple et rapide. Moteur coupé, ce n'est pas un avion en panne qu'on a entre les mains, mais un planeur. Les commandes sont souples, bien harmonisées, et ça répond

comme un vrai planeur, avec lacet inverse si on oublie de conjuguer manche et palonnier.

On enroule une faible ascendance en compagnie d'un Astir. Pas de problème à voler en formation. Mais comme cette ascendance n'est pas très généreuse, on part à la recherche d'une autre et en transition, on se sent encore en planeur, avec une finesse qui dépasse celle d'un Blanik L23. Pour l'école, c'est largement suffisant.

Bref, tout est là pour en faire une machine complémentaire d'école. Il y a bien toutefois quelques petits détails qui devront être revus et corrigés. Ainsi, la commande unique pour les flaperons et les aérofreins n'est pas une très bonne idée. Ces aérofreins manquent d'efficacité. La commande du compensateur ainsi que la manette du frein de roue ne sont pas accessibles des deux postes de pilotage.

Si les qualités de vol sont au rendez-vous, il reste une inconnue : la longévité. Face à un Twin Astir qui tient encore le coup après 30 ans en aéro-club, on se demande ce qu'il restera d'un Lambada dans 30 ans. Pour construire léger, il faut utiliser judicieusement les matériaux et c'est certain que le résultat ne ressemblera pas à un char blindé contre les pires abus de manipulation. À noter toutefois que les matériaux des années 2000 sont beaucoup plus au point que ceux des années 70 ou même 80.

La capacité des clubs à s'adapter au très léger fera toute la différence. Mais avant tout, si on veut vraiment parler de longévité, on doit se poser cette autre question : que restera-t-il du vol à voile si on reste passif devant cette décroissance de l'activité ? ❖

le premier Pégase ...

from page 21

une offre qui est acceptée ! Alors, en janvier, aller-retour au New Hampshire pour signer les documents avec le vendeur. L'homme qui vend le Pégase est un vétéran de la guerre. Cet homme de 84 ans (!) a d'ailleurs piloté des B-17 et des F-84 dans l'Armée de l'Air britannique. Aujourd'hui, il décide de vendre son oiseau (the Bird, comme il le décrit lui-même) parce qu'il n'arrive pas à se remettre d'une importante blessure au cou, petit accident survenu il y a 3 ans. Il est à noter qu'il a acheté son planeur alors qu'il avait 70 ans !

Youppi, nous voilà maintenant propriétaires d'un magnifique planeur... qui se trouve toujours en Pennsylvanie ! Et comme il a neigé un peu pendant l'hiver 2007-2008 (!), ça nous a pris un certain temps avant de pouvoir retourner là-bas. C'est finalement

possible en mars. Au retour, en pleine nuit, on doit se pelleter un chemin dans la neige pour stationner notre remorque...

Arrive le printemps et le début de la saison 2008. Nous, on a encore pas mal de paperasse à régler, et aussi de l'entretien; comme les « ADs » américains diffèrent légèrement de ceux français, certaines opérations d'entretien sont à faire. En plus, le planeur n'a pas volé depuis 3 ans...

On commande donc les pièces requises à la Nouvelle Société Centrair (qui a racheté les droits de maintenance à Centrair, lorsque cette celle-ci a fermé ses portes.) Donc, les pièces sont disponibles, c'est super... mais comme ils ne tiennent pas tout en stock, certaines pièces sont fabriquées sur demande, et les délais de livraison peuvent

donc être importants. Alors beaucoup de travail et d'attente cet été, et malheureusement, peu de vols. Une fois tout en ordre, c'est la mesure de masse et centrage, et puis on va finir les procédures avec Transports Canada. Finalement, c'est en septembre que l'oiseau prend son envol pour la première fois en sol canadien. Le planeur est un charme à piloter, et nous en sommes tous les deux très heureux. Après avoir profité au maximum de l'automne, nous avons finalement dû ranger le Pégase pour l'hiver.

Alors voilà. C'est donc à compter de l'an prochain que ce nouveau venu pourra démontrer ses mérites, et faire pleinement la joie de ses deux propriétaires, qui arpenteront le ciel sur leur nouvelle monture, en profitant à la fois de la douceur et de la fougue du légendaire cheval ailé. ❖

a day in the life ...

from page 7

difficulty at all in holding the attention of a large audience for the duration of the races by constantly switching images from the race leaders to those in difficulty, highlighting different tactics taken by contestants and switching views from high over the contest area to right into the individual glider cockpits. The program can even zoom in on the glider's simulated PDA! I believe this must become the internet standard for contest presentation.

You would not believe the compliments we were getting. I may have found a new career – a US team member called me the Howard Cosell of soaring racing!

Contest rules demanded that the broadcast be delayed 15 minutes as some team managers felt other contestants were making use of the broadcast information in their strategies. We thought some pilots were disconnecting the trackers which is contrary to the rules. Agreement was made to delay by 30 minutes at the start and shorten the delay later in the race, resulting in having more trackers 'live' during the broadcast. We can accurately predict the finish time as they begin final glide from about 20 km away. We follow the finishers onto the field and end the display after almost 4 hours of hard work!

This day turned out to be a tough day in the mountains – many abandon the tasks. There are several landouts – mostly at airfields as the pilots have learned from the Day 1 experience (several poorly-judged outlandings with two destroyed gliders and a few minor injuries and five aircraft out of the contest!). The last finishers arrive two minutes before official sunset around 8:30!

As the landings are taking place, I'm usually hanging out with Team South Africa with whom I have had a special relationship since my first World contest in Mafikeng in 2000.

7:30 – retrieve my personal belongings, lock the office and head over to the outdoor restaurant for another beer, order supper at the outdoor restaurant. Each of the staff is given tickets for each of the day's three meals. The food is great and the wine inexpensive. We gather to discuss the day's activities and plans for the next day.

On several evenings there were parties at the field (the Australians hosted one to press for support for their 2012 bid for a Worlds) or at nearby restaurants. One evening the contest hosted a private outdoor supper in Poggio Bustone for the committee members. Leo later took Steward Robert Danewid and me out for a marvelous gelato dessert.

9:30 or so (and this is variable, depending on how much wine has been bought and must be consumed, it's back on the Pink Panther, back to the room at the base, another shower and hit the hay.

The end of another great day here in soaring heaven!

Epilogue: *During the last days in Rieti, I made connections with Gianni Spreafico, the contest safety officer. He invited me to his bed and breakfast farmhouse in Arezzo, a few hundred kilometres north of Rieti in south Tuscany. I spent three wonderful days with Gianni and Enrichetta at the fifteenth century Ca' de Cio, exploring the ancient town and relaxing. Gianni even took me up in his Baby Robin (a French-built Jodel ultralight) and we flew for a few*

hours over castles, ancient towns and olive orchards and vineyards. (I have a neat photo of the central square in the medieval city of Sienna taken from about 800 feet as we circled overhead!) Gianni was to be the Italian team captain in Lüsse. We drove together through northern Italy, Austria, and on to Lüsse – but that is another story. ❖

blind date

from page 16

I could see her long slender arms outstretched as they curved and flexed in the tightening turns. I could imagine the air as a satin smooth dance gown flowing over her contours, and the long shapely fuselage as her graceful legs gliding over the dance floor of the sky.

We left the thermal, and I tried using the flaps in the higher speed settings. She responded with a hint of exhilaration at being allowed to show her class as we sped through the sky at 120 kts. The sun was nearing the horizon, and the dance was reaching its final verse and chorus. We reached the high key area, lowering the gear and welcoming the now recognized whistling noise as part of the list of checks. Our circuit was clear and the runway open. We called final as we did our final turn and settled effortlessly onto our final glide. The round out and landing were smooth and graceful as the last bars of the first dance began to fade. As we stopped, the lady gently curtsied and touched her left wing to the grass.

Our first dance had been a huge step for me, and the beautiful lady, Tango Zulu, had given me a taste of what she was willing to share with me. ❖



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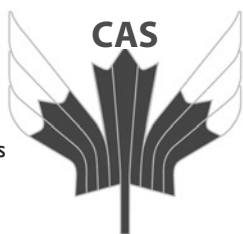
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\$50 per person, proceeds
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Novice and advanced sessions, so whether you are new to soaring and cross-country, or you are already a cross-country pilot, we'll have something for you.

Novice topics:

Getting started in cross-country, thermalling techniques, off-field landings, and more.

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Common sessions:

Understanding airspace in SW Ontario, weather forecasting, and a panel session by the Canadian Team on their experiences at the World Gliding Championships last summer in Lüsse, Germany.

Sunday program

SAC Annual general meeting 10:00 -11:30 am
New SAC gliding simulator

Displays

Museum tours in afternoon

soaring services

MZ Supplies Canadian dealer for Schleicher sailplanes, and Cambridge and Borgelt instruments. Ulli Werneburg <www.mzsupplies.com>, <wernebmz@magma.ca>, (613) 826-6606.

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Invermere Soaring Centre Mountain soaring, camping, glider rentals. Mountain flying instruction in Lark or Duo Discus. Trevor Florence, Box 2862, Invermere BC, V0A 1K0, cell (250) 342-1688, ph/fx (250) 342-7228. Website: <www.soartherockies.com> e-mail: <info@soartherockies.com>.

Pemberton Soaring Centre Glider rentals, instruction, and rides near Whistler, BC. Rudy Rozypalek, 1-800-831-2611, (604) 894-5727, <info@pembertonsoaring.com>, <www.pembertonsoaring.com>.

Sportine Aviacija Canadian dealer for LAK sailplanes, LAK-17a – 15/18m flapped; LAK-19 – 15/18m Standard; LAK-20 2-seat 23/26m Open. <nick.bonniere@withonestone.com>, <www.lak.lt>.

publications

GLIDING INTERNATIONAL — A fresh new monthly magazine for the gliding community. Extensive around-the-world soaring news. Subscriptions, US\$52. Editor, John Roake, <www.glidinginternational.com>.

SOARING AUSTRALIA — monthly joint journal of the Gliding Federation of Australia and the Hang Gliding Federation of Australia. <www.soaring.com.au>.

SOARING — the monthly journal of the Soaring Society of America. Subscriptions, US\$46. Credit cards accepted. Box 2100, Hobbs, NM 88241-2100. <feedback@ssa.org>. (505) 392-1177.

SOARING NZ — Replaces the *Gliding Kiwi*. Editor, Jill McCaw. NZ\$122. Personal cheques or credit cards accepted. McCaw Media Ltd, 430 Halswell Rd, Christchurch, NZ. <j.mccaw@extra.co.nz>.

SAILPLANE&GLIDING — the bimonthly journal of the BGA. £39 per year airmail, £22.75 surface. <www.gliding.co.uk/sailplaneandgliding/subscriptions.htm>.

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FAI badges

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The following Badges and Badge legs were recorded in the Canadian Soaring Register during the period 7 Sept to 8 Dec, 2008.

GOLD BADGE

324 Andrzej Kobus n/a

SILVER BADGE

1032 Adam Blowacki Montreal

DIAMOND ALTITUDE (5000 m gain)

Andrzej Kobus n/a 5230 SZD-55 Gorham, NH

GOLD ALTITUDE (3000 m gain)

Gary Hill Edmonton 3210 SZD-50-3 Cowley, AB
Andrzej Kobus n/a 5230 SZD-55 Gorham, NH

SILVER/GOLD DURATION (5 hour flight)

Adam Blowacki Montreal 5:16 CS-77 Hawkesbury, ON
Hank Hees Saskatoon 5:22 Apis MCs Cudworth, SK

SILVER ALTITUDE (1000 m gain)

Jason King Montreal 1460 L-33 Solo Hawkesbury, ON
Daniel Houde Montreal 1260 CS-77 Hawkesbury, ON
Marc-André Gratton Montreal 1080 L-33 Solo Hawkesbury, ON
Hank Hees Saskatoon 1630 Apis MCs Cudworth, SK

C BADGE (1 hour flight)

2891 Selene Phillips-Boyle Edmonton 1:12 PW-5 Rockton, ON
2892 Zeon Cobra York 2:08 PW-5 Arthur E, ON
2893 Devin Johnstone SOSA 1:08 SZD51-1 Rockton, ON
2894 Daniel Tayles Central Alberta 2:06 1-26 Innisfail, AB
2895 Pishoy Gouda Edmonton 1:17 PW-5 Rockton, ON
2896 Jason King Montreal 2:14 L-33 Solo Hawkesbury, ON
2897 Daniel Houde Montreal 3:30 CS-77 Hawkesbury, ON
2898 Marc-André Gratton Montreal 2:40 L-33 Solo Hawkesbury, ON
2899 Clive Francis Ken Vancouver 2:03 Grob 102 Hope, BC
2900 Hank Hees Saskatoon 5:22 Apis MCs Cudworth, SK

2008 Annual Report

The table of statistics for the 2008 flying year reflects what we all know – it wasn't a good year for gliding weather in Canada. However, gliding is a hobby that lasts. There is always something new to accomplish: a little further, a little longer, a little higher. Other hobbies get boring – like power flying for instance. As the snow begins to fall I have heard from many of you who are already planning for next year.

From personal contact with pilots over sixteen years of processing badge claims, I know how many pilots feel about their first 50 or

FAI badge and badge leg statistics, 1999 – 2008

	99	00	01	02	03	04	05	06	07	08	5 yr avg	% of avg
1000 km	0	1	0	2	0	0	0	0	0	1	0.2	500
750 km	-	-	-	-	-	-	1	1	2	1	1.25	80
Diamond	3	2	1	2	1	1	1	0	1	0	0.6	-
Gold	4	5	5	5	7	2	5	1	2	4	2.8	143
Silver	17	7	8	19	19	7	7	13	16	9	10.4	87
C Badges	33	15	38	57	26	18	33	19	27	21	23.6	89
Badge legs	79	67	71	111	99	51	47	60	90	42	58.0	72

Of the 42 badge legs, 3 were Diamond, 6 were Gold and 33 were Silver.

300 km flight. It's the most wonderful thing they have done in their life – they go over it in their mind again and again for days and even weeks following the flight. The pleasure and feeling of accomplishment it brings are seldom equaled by other experiences in their life. So in spite of bad years, soaring goes on.

Keep those badge claims coming in.

I have recently learned that Alex Krieger is retiring as Senior OO of Club de Vol à Voile de Quebec in St. Raymond. Over many years Alex has established a reputation for meticulously prepared badge claims and has been one of Canada's best badge mentors. Thank you Alex, you will be missed.

The draft of the new Sporting Code, to come into effect 1 October 2009, is now on the IGC website for pilots and Official Observers to review. To have a look, go to <www.fai.org/gliding/SC3draft>. It's not official until it is approved by the upcoming IGC plenary meeting in March. This new Code has been completely rewritten from the current version (1999 plus amendments), it is shorter – largely as a result of removing the camera from evidence requirements – and is hopefully clearer.

FAI records Roger Hildesheim

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

2008 Annual Report

2008 saw a big increase in multiplace record activity thanks to Ernst Schneider in the Duo Discus. This year, all nine records were flown in western Canada, all but one in Invermere. Tim Wood once again showed us what can be accomplished with some good planning while Tony Burton continues to raise the Club class bar in his AC-4C Russia.

A couple observations/close calls for 2008 are worth mentioning.

Please verify that the sample (and storage) rate of your flight recorder is fast enough to capture data points within the Observation Zone. In one claim the pilot had a low sample rate that did not actually log a data point within the observation zone. This puts the claim on thin ice as a straight line must be drawn between the two closest points on either side of the zone to verify that the glider flew through it. In this case the line was barely inside the zone by less than 10 metres. This is less than the positional accuracy tolerance that you can get using a non-differentially corrected GPS, but is acceptable under FAI rules. Decreasing the sample interval of your flight logger to 4 seconds (max.) will help avoid this situation. Flying further into the sector or zone will also help ensure you have a sufficient margin.

Another point (excuse the pun) that should be remembered is that a Canadian territorial record must have all turnpoints in Canada. Keep this in mind when deciding on turnpoints that are close to the Canada/US border.

Finally, records certificates will be printed and sent to Ernst, Tim and Tony in January. Congratulations gentlemen!

SAC Clubs SAC Clubs

Eastern Zone

AIR CURRENCY ENHANCEMENT SOC.
Debert, NS
robfrancis@tru.eastlink.ca

AÉRO CLUB DES CANTONS DE L'EST
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Marc Arseneault
marcarseneault@sympatico.ca

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info@erinsoaring.com

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Pendleton, ON
www.gatineauglidingclub.ca

GREAT LAKES GLIDING
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www.greatlakesgliding.com

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W of Elmira, ON
www.geocities.com/ggsa_ca/

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www.londonsoaringclub.ca

RIDEAU VALLEY SOARING
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club phone (613) 489-2691
www.rideauvalleysoaring.com

SOSA GLIDING CLUB
NW of Rockton, ON
(519) 740-9328
www.sosaglidingclub.com

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airfield: 24 km W of Shelburne, ON
www.torontosozaring.ca

YORK SOARING ASSOCIATION
7 km east of Arthur, ON
club phone (519) 848-3621
info (416) 250-6871
www.YorkSoaring.com

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ALBERTA SOARING COUNCIL
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