

free flight libre



2/08
Apr/May



Priorities

John Toles SAC President

I'M WRITING THIS on the airplane as I fly home from Montreal. The weekend had the first combined event of the SAC Annual General Meeting and the Canadian Advanced Soaring (CAS) cross-country seminars. The response was good, the comments favourable, and the plan is for a similar event next spring. SAC held the AGM Saturday morning as well as providing displays and tours on Sunday. Following the AGM, the CAS seminars ran through the remainder of the morning and the afternoon. This year's arrangements were through AVV Champlain, with special thanks to Simon-Pierre Dupont and Sylvain Bourque for their hard work.

The AGM weekend is also a time for meetings of the SAC directors, with budget and planning meetings on the Friday and follow-up meetings on Sunday before heading home. We dealt with a number of important matters.

A combination of increased revenues and reduced expenditures gave us an operating surplus in 2007. One result is that fees will not increase this year. Another is the establishment of a *Special Projects Fund* of \$30,000. Although details are still to be worked out, a portion of this fund will be available to provide SAC with three portable glider flight simulators. I hope that they can be ready in time to assist with instructor development at the instructor courses being planned for 2008 – Western, Ontario, and Quebec. The simulators will also be available for loan to clubs. Simulators are proving effective in student instruction, and may extend interest and opportunity beyond the normal weather-dependent soaring year. They may also have benefits as a club promotional tool, available for events, displays, etc. A number of other possible uses for the fund were considered and discussed.

The World Contest Fund was reviewed, and there is now considerable assistance available for the Canadian team this summer. Clubs are also being asked to assist through a promotional weekend. Consider the model endorsed by the Alberta clubs; on a designated weekend a *Canadian Team World Contest Promotion* will be held by each Alberta club. Introductory flights will be featured, with proceeds donated to the fund. Media will be provided with the team profiles via the SAC website, along with information on gliding and soaring. The model provides an opportunity for club promotion as well as team support. All clubs are encouraged to plan to participate during the *National Week of Soaring* by setting aside one day of introductory flights, of which a portion will be donated to the World Team. A draft press release will be provided on the SAC website for clubs to use or modify.

The future format of *free flight* was discussed. Before the electronic era, the magazine was the major source of time sensitive information about SAC, soaring events and soaring news. This type of content is now quickly and effectively available on the SAC website. (The magazine can still provide this information with more detailed information as well as more stories and articles of interest in each issue.) Today, it is more difficult to get enough content for the current bimonthly publication. The Board recommends moving to a quarterly publication, likely with a regular colour cover and more pages (32 vs 24 on average). This would reduce total printing and distribution costs. Simon-Pierre Dupont has offered to assist the editor in getting more French content.

The need for a website Content Editor was discussed. We are currently seeking a volunteer to receive content, post it, and remove out-of-date material with support from the technical web team. We need YOU! Offers? Suggestions? The site provides the potential to be very current.

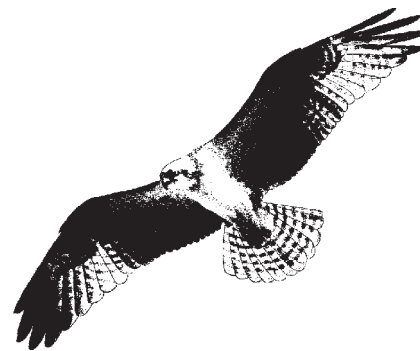
The effectiveness of last year's COPA newspaper insert was reviewed. Although this may be done again in the future, the feeling was that it would not be cost effective to do this annually. A general SAC advertisement will be arranged for each edition. As well, we encourage members to submit soaring articles that may have appeal to general aviation pilots. A *COPA Guide to Soaring*, written by Dan Cook, is also now available.

There were many other agenda items, many of a general "housekeeping" nature, but the purpose of this article is to provide an overview of board activity of interest to members. More detailed information and meeting minutes will have been available on the website before this issue arrives in your mailboxes.

Soaring will by now have started in some areas, with the season in full swing shortly. Fly often. Fly safely. Have fun.

free flight vol libre

2/08 – April/May



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

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Cover

A late afternoon lunar finish to a long flight by Jerzy Szemplinski down on the Ridge. It was a failed record attempt last October, but one week later he did it, flying a 500 O&R that earned him three citizen speed records.
photo: Maria Szemplinska

DEPARTMENTS

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Airspace

Ian Grant

Readers will recall that 2006 was an eventful one for airspace. This report summarizes ongoing developments for 2007. In the spring, NavCanada implemented changes to the controlled airspace structure in the Toronto area to improve protection for air transport aircraft. The changes had minimal impacts on soaring in comparison with the proposals first put forward. This favourable outcome resulted directly from the representations made by SAC and COPA to senior officials at Transport Canada and NavCanada.

Our call for consultation has also borne fruit. In March, NavCanada kicked off a review of airspace and services in the Windsor-Toronto-Montreal area. According to the terms of reference, available on NavCanada's website, "customers and other stakeholders will participate fully in the identification of issues and in the development of solutions. Full consultation with stakeholders will be conducted before implementation of any changes."

NavCanada is living up to its promise so far. Members of the Airspace committee have participated in several consultation meetings. The most recent meeting with recreational aviation groups was held in Mississauga in November. The discussion was constructive, with the focus mainly on Toronto and Hamilton. This review is likely to take many months before concrete proposals are put forward for consideration.

Several developments outside Canada also are noteworthy. In the USA, the Federal Aviation Administration (FAA) has issued a notice of proposed rule making (NPRM) on the need for better air navigation systems to cope with the projected growth in air traffic. The NPRM describes ADS-B as a key technology to achieve this goal. ADS-B onboard equipment broadcasts an aircraft's location and velocity. When displayed in the cockpit, information about other aircraft obtained through ADS-B can greatly improve situational awareness. The Airspace committee has been informed that Paul Remde of Cumulus Soaring will lead a discussion at the Soaring Society of America convention in February on ADS-B and what it might mean for soaring.

In Europe, Mode S is being adopted to address future growth in air traffic. Mode S transponders are assigned unique addresses, allowing radar to interrogate them selectively and receive individual replies. The UK Civil Aviation Authority (CAA) has issued a revision to last year's proposal which makes a few concessions to feedback from users. The CAA proposal is to be implemented in two phases. Phase 1 will mandate carriage of Mode S transponders in all UK airspace where transponders are currently required, effective 2008. Phase 2, scheduled for 2009, will remove the current transponder exemption from gliders and will require Mode S transponders in controlled airspace below 10,000 feet and in any new transponder mandatory zones. The CAA has also instigated technical studies on a low-power SSR transponder (LPST) for aircraft such as gliders.

At this time, it's not clear to our committee how the different proposals in the US and Europe mesh, nor which way Canada might go. Nevertheless, as noted in last year's report, these developments suggest that SAC member clubs continue to face the prospect of future changes in airspace and transponder requirements aimed at further reducing the risks of mid-air collision with transport aircraft.

The 2007 FAI General Conference decided to establish a new FAI Technical Commission on Navigation and Airspace. Ian Grant and Scott McMaster have the honour of been nominated as the delegate and alternate for Canada. Hopefully, this new commission will provide a forum for exchange of information in this area that is important for our sport and the freedoms we enjoy.

Finally, I would like to thank committee members Scott McMaster and Roger Harris, and the SAC Board and Executive Director Jim McCollum, for their collaboration throughout the year.



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 high-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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letters

L'ASSOCIATION CANADIENNE DE VOL À VOILE

est une organisation à but non lucratif formée d'enthousiastes et vouée à l'essor de cette activité sous toutes ses formes, sur le plan national et international. L'association est membre de l'Aéro-Club du Canada (ACC), qui représente le Canada au sein de la Fédération Aéronautique Internationale (FAI), laquelle est responsable des sports aériens à l'échelle mondiale et formée des aéroclubs nationaux. L'ACC a confié à l'ACVV la supervision des activités 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.

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

Pour signaler un changement d'adresse ou s'abonner, contacter le bureau national à l'adresse à la gauche. Les tarifs au Canada sont de 30\$ ou 55\$ pour 1 ou 2 ans, et de 35\$US ou 60\$US à l'extérieur.

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I think winter has gone

As I write this, the Scott Tournament of Hearts is almost done and the Brier is just around the corner. Anticipation is building. Curling is almost over for the season. It is couch time, some of the only couch time that I ever take on a regular basis. It is also a signal, a message that a season is almost over and a new beginning is about to spring upon the land. Curling is my winter pastime, it is a reasonable winter sport – it begins in the winter and ends in the winter. Until we get a little bit more global warming I'm not riding the motorbike to the rink and I'm not coming in from cutting grass to catch the playoffs.

Soaring season is almost here. The only other season we get in Canada. It's time to get out my *SOAR and Learn to Fly Gliders* for my pre-flight read-throughs. Not just a scan of all the high-lighted phrases but a couple of times through from cover to cover. It's time to clear out those "sometimers" (some times I remember and some times I ...).

I've fired up the flight simulator and flown a couple of tows and circuits already, caught a couple of thermals and ran through my check lists. If you don't use a CALL check in a Sim, would you do it in the air?

Last fall I bought a nifty little head-piece that changes the view from the Sim cockpit as I turn my head, just to add another slice of realism. It doesn't show the extra ballast I've put on over the winter when I look down in the cockpit but all the controls are there and I can check "All Clear Above and Behind" (almost). It sure makes it easier to scan the horizon and fly head-outside-the-cockpit.

I'm not only anxious to get to the airfield out at Chipman and into the air – I'm excited to

see the other pilots and fielders – people who come out just to see what is going on, maybe take a flight, or help out with all the activity that puts the field into a buzz when the sun warms a soaring pilot's heart.

I tell everyone, "If you have ever wanted to fly, you should give soaring a try." It is economical and you will meet a great group of people. For a couple of grand per year you can fly your butt off, and at our field we have a great camp area for the whole family to enjoy. We need to encourage the general public, friends and family to join us on the airfield and in the air to help the sport grow because you never know where the next keener is going to come from. This winter I donated a few gliding certificates that were snapped up at a STARS [med-evac helicopter organization] fund raiser and some others were awarded to excited contestants during the winter, so I will have to top up my flying account. It is just a win-win for everyone.

This morning some of the winter zombies are meeting at the airfield to caress our summer maidens. Another glider swap takes place as we load one ship for a trailer ride to a heated spa for a little rejuvenation and pick up a polished and prepared sweetheart to tuck away in the hangar. Fear not, soon we will feel the warmth of the sun and soar with the birds as we chase the clouds.

What will I learn this year? I do need to set some new goals, higher, farther, safer. I just need to get through the rest of my spring time checklist. Start from the beginning when we get interrupted – curling is ending, re-read the training manuals, fly the Sim, top up the flying account, check the equipment, get some more new enthusiasts, prepare the RV, plan this years goals...

Gary Hill, ESC

OPINIONS – boy, what did we do before the SAC Roundtable!?

Well, comment and opinion was a bit slower circulating but by no means any less heated. The hot buttons are always the same though, so I thought there might be entertainment value in collecting a lot of that material which has appeared in *free flight* over the years. It will be titled, "**Come outside and say that ...!**" and will be available soon on the SAC Documents page. Some of the authors are highly respected international figures like Fred Weinholtz and Justin Wills – if they were concerned about something, it's probably worthwhile to read what they had to say.

You might be surprised to find that your current pet peeve is almost as old as SAC itself. If you think some aspect of this wonderful

sport is going to hell in a hand-basket, consider doing a little remedial reading first – an earlier rant could either answer your beef, or add ammunition to it!

The subject matter is pretty consistent: the latest change in the national organization, the "state-of-the-sport", technology, contests, and badge rules are BAD; not only that, it's been reported that your club hardly has a clue as to what it's doing, why it exists, or how to treat its "customers" – even if it knew who they were. You will see lots of good ideas from the 1980's and 90's, I leave it to the reader to see what differences may be found between then and now.

Tony Burton

an AFH-3 update



Ed Hollestelle, SOSA

BACK IN THE 5/02 ISSUE of *free flight* I wrote an article about building the AFH-3 glider. I promised our editor a follow-up at the time but somehow it never happened – there always seemed to be other chores and deadlines that prevented this from happening.

To bring you up to date, Ed built this sailplane from a lot of wreckage – a Ventus A cockpit, wings from two Ventus B's, the tail end from two SZD-55's, and a homebrew mid-fuselage! Re-read the story in 5/02. editor

It is now about five years ago that I finished this project and it still looks as beautiful as it did when I completed it. The Simtec Prestec finish is still perfect and is pure white without showing any signs of yellowing. It is sad that I did not fly it more often during the first few years but I did have had a chance in 2007 while Rick Walters was competing with my LS-10 at the 15m Nationals in Mifflin, PA, then at the 18m Nationals in Albert Lea, MN.

Last May I flew the AFH-3 at a contest in the 18m class at Cordele, GA and found that it would more or less keep up with the DG-808 and the LS6-18. Later, Annemarie and I went to the 18m Nationals at Albert Lea. Unfortunately, the weather didn't cooperate and it was a no-contest. But I had a chance to fly with the best again and was not disappointed. We have not done the actual flight testing that was planned, but I am convinced that the performance is in the 48-49:1 range in its 17.5m configuration.



As is the case with the older Ventus models, it requires more work to thermal effectively but I think that the change in the wingroot fairings has added to the handling in this respect. In the spring of 2007 I also added "air dams" between the flap and the backside of the fairing which improved the thermalling significantly and, I hope, improved the high speed performance as well.

After the initial flights I found that the elevator control was not optimum, so I installed zig-zag turbulator tape in front of the hinge line, top and bottom, and that improved the handling to my satisfaction.

I have now 38 flights and about 110 hours on the glider and I am still working to improve small issues that will make it more comfortable or improve handling and performance. When it comes to homebuilt gliders (or powerplanes for that matter) there seems to be no end to what "should be done" and I can only hope that all the latest improvements make this a more competitive glider.

During the construction stage I had concerns about the very narrow cockpit from the Ventus A, but it gets very comfortable – about 20 minutes into the flight. I intend to modify the flap control so that the activating handle sits horizontal and above my left leg, making it possible to mark and see the flap position. At the current position the (vertical) handle is hidden behind my leg and you have to guess at the position or move your leg and actually look at the setting. Another issue was the canopy fit – closing and locking the canopy was okay here in Canada but at the higher temperatures down south the canopy was very hard to do! So some extensive sanding and refitting was done to the frame and the fuselage side.

As for other updates, the runway on my Cobble Hills airstrip has turned out very nice. We must have used the right combination of grass seed, and rolling it frequently has made it very smooth. ⇒ p19

Fairings shown with the new air dams. Flaps are in the "go fast" setting. The air dams keep the fuselage/flap gap closed up to the second "thermalling" position. Note that the fairing starts with the wing about 8" out from the fuselage side of the fairing.

Winning by not losing

Consistency is the key

Dave Springford, SOSA

CORDELE, Georgia, 150 miles south of Atlanta, home of pecans, watermelons and the Region 5 South Soaring Contest, has hosted annual contests since 1970. With generally flat terrain and good soaring conditions, Cordele is an ideal site for both beginner and experienced contest pilots. The airport is an old WWII B-25 training base with plenty of room to host a gliding contest.

Before last year I had flown two Regional contests and an 18m Nationals in Cordele. I had not planned to fly in the Regionals, but was thinking about going to Albert Lea in Minnesota for the 18m Nationals. I made a last minute change of plans and decided to go to Cordele (the contest in Albert Lea was all but rained out – so I was lucky!). The six day contest ran from 14-19 May and I had yet to fly my LS-8 or fly any real cross-country so far in the season so I planned to arrive early for two practice days. On the drive south from Atlanta the sky was full of cu with bases that looked to be at least 7000 feet. I was ready for a smokin' first practice day.

Arriving in Cordele, I find Andy Gough and Steve Newfield camped at the airport in Andy's RoadTrek, so after tying down the glider trailer I made a quick run into town to buy BBQ fixings. When the time came, I decided to sleep in the car that night instead of risking a drive to the motel. The next morning I awoke to the pleasant smell of a campfire – was someone cooking up breakfast over the open fire? Getting out of the car I saw a thick layer of fog and a strange orange ball in the sky. After a few seconds I realized that this was not fog, but smoke from the wildfires burning in the Florida panhandle. The wind had turned from the south and yesterday's smokin' day was significantly better than today!

Fortunately, a weak cold front passed in time for the first contest day and cleared all the smoke back to Florida. Day 1 was the weakest day of the contest with blue thermals that strengthened as the day went on. Andy wins the day in Standard Class at 55.8 mph and I am second at 53.6 mph. The day was severely devalued as a result of the majority of pilots finishing in less than two hours. Andy earns 720 points for the day and I get 692.

The weather turned significantly better the second day with 6 knots to 6000 feet and cumulus marking the thermals. Andy wins the day again with a speed of 73 mph and I'm third at 72.2 mph. The scores are close – Andy earned 1000 points, second place got 995 and I got 990 for third, leaving me in second place overall 38 points behind Andy.

The weather reports for Day 3 were not encouraging as a front was forecast to pass through the task area in the afternoon. As it turns out the front stalls and we get a second day in the same airmass – 6 knots to 6000 again.

I take second on the day, 0.25 mph slower than the winner, Mike Smith. For this I earn 996 points, while Andy gets 957. This puts me in first place overall with 2678 points – just 1 point over Andy. We joke over a beer that this 1 point difference over three days equates to less than one extra circle in a thermal over the 450 miles we have flown the past three days.

The front comes through the next day and we're grounded, but it brings with it a fresh new airmass and on Day 4 we see 6-8 knots to 7000 feet. The winner turns in a speed of 75.6 mph and my 73.1 mph is good enough for 4th on the day with 967 points. Andy has a disappointing 6th on the day. With the day winner coming out of the bottom of the pack, this leaves me in first place increasing my lead on Andy who is still in second.

The last day of the contest provides some interesting weather with good lift in the start cylinder and cloud-base around 6000 feet. As we leave the start gate and head for the first turnpoint, everything seems to be great – we are cruising around at cloudbase but cloud-base has slowly been dropping and is now 2000 feet lower than the start. To compound the problem, the sky has filled in to be almost overcast and we are down low in survival mode. Everyone has trouble around the first turnpoint, but we find enough lift to get in and out and things improve again for the rest of the flight. As a result of the slow first turnpoint everyone is slower today. I take second again, 0.25 mph behind the winner for 996 points. Andy has another tough day finishing seventh dropping him to third overall. I remain in first, 128 points ahead of second place.

The table below shows the daily standings for the top three pilots and total cumulative points in the contest.

		Dave	Mike	Andy
Day 1	Place	2	6	1
	Points	692	583	720
Day 2	Place	3	4	1
	Points	990	946	1000
Day 3	Place	2	1	3
	Points	996	1000	957
Day 4	Place	4	2	6
	Points	967	984	904
Day 5	Place	2	1	7
	Points	996	1000	896
Overall	Total	4641	4513	4477
		1	2	3

Both Andy and Mike won two of the five contest days, but they both also had at least one bad day finishing 6th or lower. On his worst day, Mike scored 80.9% of the winner's score, on Andy's worst day he scored 89.6% ⇒ **p19**

Safety/accident report 2007

Dan Cook

chairman, Flight Training & Safety committee

THERE WERE FOUR ACCIDENTS reported in 2007 which include one fatality and the write-off of one aircraft. With exception of the fatality, 2007 was again a marked improvement from previous years in the number of accidents. Our hope continues that the Safety Management Program efforts are having an influence in improving safety. Many clubs are working on their Safety Program Manuals and Gatineau Gliding Club and Silver Star Soaring Association have submitted their manuals to SAC.

Accidents

Fatal SZD Junior. The safety report has not yet been received for this accident. Several pilots observed the glider on final to partially open air brakes with the nose attitude changing a few times. Short final was in a steep attitude with a much faster than normal approach speed. About 30 feet above ground the air brakes opened fully and the glider impacted the ground half way down the runway at about 35 degrees nose down attitude. Winds were light and the impact destroyed the cockpit.

Lessons learned: Without the details from TSB and final accident reports it is impossible to write specifically to this accident. However, past accidents with severe impact on final, after eliminating medical factors, have drawn our attention to better understand some human factors when it comes to reflexive responses, potential for distraction, and low "g" sensitivity.

Write-off A Discus and its trailer was destroyed by fire while being transported to the field. It is believed that a glider battery stored in the trailer in an open crate was shorted out when a polishing can may have fallen onto the battery and shorted the terminals. Other combustible materials in the trailer (polishing rags, polish, and spare tire) quickly ignited and fueled the intense fire.

Lessons learned: Despite soldered terminals covered with electrical tape, shorts can occur. Store batteries separately and transport them in their own enclosed non-conductive container (plastic box).

Moderate Damage Grob Twin canopy was not locked and opened shortly after take-off and impacted against the right wing at the root, snapping the hold-open lanyard, and subsequently cracking and scarring the Perspex.

Lessons learned: Pilot and wing runner each assumed the other had locked canopy. Pilot did not double-check that it was secure nor did wing runner mention it. There were CISTRSC-O and SWAFTS stickers in both cockpits; however they had faded and were due for replacement.

Minor Damage Puchacz is landed out in a cornfield. Minor spoiler and canopy damage. Pilot disoriented and drifted away from field in light rain.

Lessons learned: Conditions of reduced visibility requires situational awareness be established before moving too far away and hoping conditions get better.

Incidents

- Low circuit with open spoilers. Pilot misjudged height.
- Fuel contamination. Fuel was pumped out of an unmarked non-aviation fuel drum using a hand pump that had no filters attached to it.
- Glider joins thermal by flying at glider then establishing adjacent circle circling, then attempts to turn inside the circle of first glider.
- L-23 Blanik gear collapsed on normal landing as a result of corrosion/cracks on mounting bracket for gear over-center lever mechanism. Defect had already been repaired by previous owners.
- Towplane fuel tank cap was not replaced after refueling and discovered on taxiway.
- Towplane rope snags landing light on landing. Rope was not released prior to landing.
- Low and slow approach in trainer results in under-shoot. Too much spoiler initially used for wind conditions and base leg too far downwind. Student not familiar with more powerful air brakes on type, instructor late to correct.
- L-13 Blanik wing dented after stopping over taxi light. Instructor taxied off active runway to avoid jet on final. Stopping on runway is club policy but would have forced jet overshoot.
- Two batteries were connected together by mistake at the charging station in the hangar resulting in melting wires. Lubricants, fuel containers and tires stored next to battery charging area.

Analysis

With respect to other landing accidents (some fatal) involving high angle incidence or speed, several factors cause concern. By understanding the various human factors conditions in situations, we may be able to avoid other devastating accidents.

Often a pilot's attention is taken away from the "big picture" and we focus on a single problem. As stress levels increase we may not be aware that this is happening nor necessarily be consciously able to avoid the loss of situational awareness. Poor ergonomic design on gliders has caused many accidents, for example, in the L-13 Blanik where pilots have closed the flaps thinking they were holding the air brake lever. The resulting confusion or surprise sends the heart rate up and the pilot loses cognitive ability to analyze the situation, with some experiencing tunnel vision. Stress inoculation training using



“Scenario Based Training” has shown to help develop some resistance to this phenomenon (see *free flight 4/07* article, *BLINK*, about acute stress).

The next human factor for attention deals with how we reflexively respond to stimulus. We are programmed with survival reflexes. For example, since birth we reach out to grab instinctively when falling backwards. When we pull with one limb we instinctively brace or push with the other. When we turn our head to look in one direction we tend to follow with our hand on the car steering wheel or aircraft controls. If you were to try to raise yourself ahead to look over to one side in the glider you would likely move the control stick back and to the opposite direction. In addition, we can develop reflexive actions with repetitive training. To illustrate, there was a Learjet accident some years ago where the pilot (new to this jet) was exposed to a wind shear on approach. To prevent the stall, the very experienced ex-military jet fighter pilot pulled the power back and pushed the nose down into the ground. HF analysis showed he was a victim of his repetitive training. The drill was with the right hand on stick pull back (nose up) and with left hand on throttle full forward (maximum power). Now put the control yoke in your left hand and throttle in your right hand and you see his situation! At times, events occur so quickly there is little time to think how to react and instinct or training takes over, right or wrong.

Low “g” sensitivity is a recognized phenomenon that we can detect in new students and condition them against it. There has been a rash of accidents worldwide in the past where the pilots had learned that when stalled (falling sensation of low “g”) they moved the stick forward to recover. Many did so, increasing the sensation, until impact with the ground. Instructors now look for this sensitivity in early flights, then build up tolerance slowly if the pilot is sensitive and demonstrate, when teaching the stall phase of exercises, that the aircraft is completely controllable in low “g” situations if the airspeed is above the 1g stall speed. We also now use the instructional term “lower the nose” for situational stall recovery to prevent the instinctive reaction of the old terminology, “move the stick forward”.

These three areas of human factors are not all inclusive in accidents in the circuit and on approach, but they cover some of the main areas we have had difficulty with in the past. How will you react if the unexpected happens? Don’t assume you will deal with it. Do some simulated emergency training with an instructor.

We are vulnerable to fuel contamination when refueling powered aircraft at remote locations such as gliding clubs. Avoiding such contamination requires a dedicated aircraft fuel pump. It should have two filters attached, one the regular *WIX* filter with the glass bowl and the other a go-no-go water filter which shuts off the fuel supply if water is picked up from the drum. In addition, a dedicated aircraft “lined” fuel drum should be used.

How safely are your batteries stored/charged. Lubricants and fuels should be stored in a metal building separated from aircraft or people. Having an ignition source and fuels in the same location has led to disaster and is easily preventable.

Some off-field landing situations have resulted from misjudging height in the setting sun. When flying late in the day there is a hazard that we should be alert to, and this is a loss of depth perception at dusk from the diminishing light. We begin to lose our ability to judge heights and hence have to be alert to this when flying the circuit and coming in on final. Another hazard is that we get towed to say 2000 feet and at that height it seems quite light, so we feel safe. However, on the ground it can be much darker and the sun has already gone below the horizon (at ground level), so it is very much darker a few minutes later and hence difficult to see as we flare for the landing without a good view of the runway’s surface! This is a particular hazard on late afternoon wave flights.

Conclusion We are at a favourable turning point now where we have few accidents to analyze, so we need to focus our attention on incidents and latent hazards. Clubs should forward to the SAC office their list of club accidents and incidents and preferably their own safety analysis for each season as soon as possible. Without this information, an adequate SAC safety report and feedback cannot be provided. As you see in this report we have few incidents reported. Without club incident reports we will not be able to provide mitigation strategy for national trends, to tailor training, and produce safety products to meet your needs. My thanks this year to the following clubs for sending in safety information:

Mike Innes at London Soaring, Ray Perino at Canadian Rockies Soaring, Norm Goodsir at Cu Nim, Mike Morgulis at Air Sailing, Larry Morrow at WGC, John Brennan at SOSA, Bernie Boehnke at Silver Star Soaring, and Gerry Binnema at Vancouver Soaring. ❖

Stress and the aging pilot

Dave Fairchild, from SOARING

CROSS-COUNTRY? Thermal Flyer? Competitor? Badge chaser? Ridge Rat? Sunday Flyer getting patterns to remain current? Whatever your reasons, you love it. You love to fly, especially gliders. You want to soar, capture the precious altitude, pass the little towns, see hidden valleys, scope out eagles' nests, chase hawks and buzzards, tempt the bottom of cumulus. Ours is a wonderful sport/hobby/challenge. Complete with technical skills, hand-eye coordination, deep knowledge base and abilities to think outside the thermal to get home safely. Our abilities in the aircraft far surpass any of our colleagues flying only powered airplanes... and that said from a long, long time pilot of extremely high performance aircraft. Hey, when every landing is a dead stick, one has a tendency to pay attention. We're different, we're special ... we are the original silent majority.

Mark Twain once said: *"I have known a great many troubles, but most of them never happened."* Planning overcomes worry.

We all fly for the "same different reasons." Many of us fly to reduce stress... and yet to some, flying is a stressful undertaking for many reasons. Our reactions to stress and stressful situations are unique, and yet the same. Everyone has heard about the "flight or fight" reaction to fear. Those are cut and dried. Reactions to stress are much more subtle, often not even recognizable by the individual because nothing is "felt," or there is no perceptible physiological or psychological symptom. But it's there.

I had a psychology professor who postulated that all stress is internally caused. If we don't want something to "stress us out," we are the ones who control its effect. Take an extreme example – your boss fires you. Stressful? Not if you don't care, have done your homework and have another position already lined up. Job loss is big in the stress category, as is a death in family, divorce, moving to another state, the birth of a child, marriage...heck, deciding what to have for dinner is stressful to some. But it's up to you. How we perceive our stress level will allow us to cope with life's little miseries easier and more efficiently. How we *react* to what we perceive as stress will determine our well-being.

The problems arise when we let our lifestyle get in the way of our lifestyle! Huh? You know people who would rather have a quadruple root canal than get into a glider with you. One person's stress is another person's hobby. The American Heart Association (AHA) points out that seemingly minor daily occurrences can lead to stress... "the key is managing our stress properly."¹

An unhealthy response to stress can lead to health problems in some people. Difficulty sleeping before an important flight evaluation? No doubt that can be a stress-

ful situation. Putting yourself in an evaluation situation can be a "trigger" to stress. A trigger such as a check-flight can lead to "feelings."² Do you go so far as to feel angry at the evaluator, helpless, afraid of failure? Those, according to the AHA can be typical symptoms. Others include aches in your head, neck, jaw and back³ – not exactly how you would like to feel when flying. When taken to the extreme, some people develop their own stress relief remedies: smoking, heavy alcohol consumption, drugs, and even overeating.⁴ And if you are really overcome, you might drop into deep "physical, emotional or behavioral symptoms such as: high blood pressure, heart disease, stroke, ulcers, migraines and others. Emotionally, you might become anxious, depressed, angry... and... forgetful."⁵ The "forgetful" is what concerns most pilots. Another behavioural change that can lead pilots astray is irritability – the short fuse, finding fault with others for your shortcoming, projecting blame on someone else.

Had enough psycho-babble?

What can we do? You have seen people who seem to handle stressful situations very well. In fact, some thrive on it. Much of what is written are suggestions to manage your stress. Finding techniques to avoid or anticipate and shortstop stress are more difficult to find. A key premise we try to instill in all new pilots is planning. Granted you cannot plan for all contingencies, but you can certainly plan more flights to avoid surprises. Solving problems on the ground is much easier than solving them in the air.

The FAA tells us we must "be familiar with all available information concerning the operation of that flight."⁶ All available information? If you were clairvoyant this would probably be possible, and the chances of surprises would be zero. But that's not the way life works. But planning should be primary before we even assemble the aircraft and strap in. Simply stating to yourself, or jotting down a plan of action, an expected sequence of events with outs or alternatives can do a lot to relieve the effects of pop-up stressors when airborne. Many pilots have little cheat sheets (some call them checklists) on every flight, listing mission milestones, check points, alternatives, abort procedures at various stages of the flight, radio frequencies, landout fields and emergency procedures.

Armed with this type of forethought or checklist or planning documentation, you will be better able to manage your time and your altitude, enhance your time spent outside the cockpit looking for other aircraft, surface features and hazards... knowing that if something does run amiss, your mindful planning, checklists – mental or written – may help you. What else can you do on the ground? Manage your time and get some exercise. As

we age, managing our time might be somewhat more simple. Getting exercise may not. Assuming we are mobile enough to get in and out of a deep cockpit unassisted, it should be obvious that a 20-30 minute walk before we leave for the field might be in order. I knew a pilot who walked twice the length of the runway (out and back) before strapping in... just to arrange his gray cells. Ask yourself before you leave for the field, "is there something on my mind that might interfere with my decision making?" If yes, perhaps flying this day is not a good idea. Ask yourself if the item on your mind might still be important a month or year from today. By putting life's little diversions into perspective, they become also-rans in the scheme of stressors you encounter. Bypassing a perfect weather/wind/thermal/wave day to resolve excess baggage in the cockpit is a sign of control.

Control of stress is *much* more important than coping.

What else?

Is all stress bad? Not really. Without it some of us would never get out the door to do anything. Having food in the house is stressful to some, and without that kind of motivation, some would die of starvation. For us, the aging pilot, and to some extent all pilots, there is a definite mind-body connection. The longer you are around, the more "things happen". Past illnesses can play a role in coping and planning, declining income or the threat of declining income after retirement... will I even be able to afford flying? Social/familial role reversal – did anyone out there marry a trophy wife, or trophy husband? Going from the primary breadwinner to house-husband can be a real shock to some and a gateway to stress... try it for a while, managing a vibrant household is not a piece of cake by any stretch. Divorce is a huge stressor.

About "one third of retirees have difficulty adjusting to certain aspects of retirement, such as reduced income, altered social role and entitlements. Relocation (and men respond more poorly than women) can be perceived as a loss of control if not planned for properly, and the individual has no say in the move."⁷ Retirement, relocation, or bereavement will have impact that we may not

be willing to accept as factors in mindset at launch. All life changes can effect your ability to objectively manage your life.

Stress lowers the immune function, some wounds heal more slowly, you might take a longer time to adapt to social and family changes, you won't be as quick to adapt to temperature changes... all these stressors speed up aging.⁸ Other physical consequences of stress, some good and some bad, are rapid breathing, increased heart rate, increased energy, sharper senses, and as mentioned, decreased immunity.⁹ It's not just getting older – most can cope with "just getting older". It's when life throws too many curves at you simultaneously that it becomes difficult to transition... and all that "stuff" may affect the baggage you bring to the flying field.

So take a break between assembly and flying – have a sandwich, read through your checklists. Practise a relaxation exercise, like deep breathing or stretching while you visualize your tow or launch. If you anticipate a very long flight, take a snack, water, or other non-carbonated, non-caffeinated beverage. It's all about planning, anticipating, managing the circumstances that you can before running into the unforeseen. ❖

1. American Heart Association, *How can I Manage Stress?*: from <www.americanheartassociation.org/downloadable/heart/110167971464923%20howcanimanagestress>
2. Cleveland Clinic, *The Phases of Stress*: from <www.clevelandclinic.org/health/health-info/docs/0200/0296.asp>
3. AHA, op. cit., *How does stress make you feel?*
4. AHA, ibid.
5. Cleveland Clinic, op. cit., Phase III.
6. FAA. FAR Part 91.103. Extract.
7. Merck, *Effects of Life Transitions*, Chapter 15 Social issues: from <www.merck.com/mrkshared/mmg/sec1/ch15/ch15e.jsp>
8. Center for Disease Control, *Stress Response*: from <www.phil.cdc.gov/phil/details.asp>
9. CDC, op. cit., Public health image library.



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SAC Insurance, 2007

Keith Hay, Insurance committee chairman

FOR THOSE WITH QUESTIONS or comments regarding the insurance plan, please use the SAC insurance committee address, <insurance@sac.ca>, as it is usually the quickest and easiest way to reach me. I do try to get back to people within a couple of days, though it sometimes may take somewhat longer depending on holidays and more complex issues.

I want to thank the SAC board for their direction and support over the last year towards the insurance plan. I also want to recognize our broker Grant Robinson of Jones Brown Inc. It is of great benefit to SAC to have a broker with the expertise and background that Grant has with aviation insurance, group plans and the SAC plan. Grant and the staff at Jones Brown also provide SAC with the bulk of the work in administering the plan throughout the year as well as managing the renewals. All this would not be possible without the cooperation and assistance of club treasurers in distributing and collecting the renewals for their club and private owners. Thanks to all.

As you can see in the graph, while we had a bump in losses compared to 2006, we are continuing a downward trend in our loss experience, which bodes well for the 2008 renewal process. This is helped by the fact that some of our worst years continue to 'fade into history'.

SAC continues to apply a "Claims Surcharge" for those with claims in the last three years. This amount is, in turn, rebated to all owners with a claims-free record in the form of a "No Claim Bonus" at each renewal. For 2007 the plan rebated a total of \$8400 to those owners with claims-free records. Unfortunately, \$8222 was also levied in additional surcharges to those owners with recent claims. These surcharges will be used to pay claims-free rebates in the 2008 year.

2007 saw the renewal date for the SAC insurance plan move from 1 February to 1 March. This was another step in realigning the insurance year towards the SAC membership year and start of flying season. This does seem to have helped keep the renewal process from dragging on as it has in the past couple of years.

The 2008 policy will be written for a 13 month term from 1 March 2008 to 1 April 2009. The premium being charged will still be based on a normal 12 month policy, with no additional charge for the 13th month of coverage. This final shift will complete the alignment of the plan with the SAC membership year, the general start of flying and membership revenue for clubs.

While we had relatively good experience with the changes to the insurance renewals forms this year, we have been finding that the number of errors in calculating premiums has been increasing as new options have been introduced

over the past several years. We will be looking at some changes to the renewal forms to try and simplify them somewhat. Of interest, after being a consistent request over many years, few owners took advantage of the options for higher deductibles under the plan. Thanks to all those who completed their pilot questionnaires. We had very few issues with them.

As I write this report, we are in the process of reading *Requests for Proposals* to send to a group of five to seven underwriters in the Canadian market. Once we have received responses, they will be evaluated and we will finalize any changes for the 2008 plan. Even given the slight bump in our claims last year, we are not expecting rates to increase and are working towards negotiating a second year of premium rate reductions. While we do not have potential rates available at this time, we are not planning any substantial changes to the options available under the plan as we saw in 2007 (see p16).

Renewal packages this year will be sent out to each club treasurer or contact in the latter half of February in advance of the 1 March renewal date. As in previous years, coverage will be extended for the month of March to owners to allow for the renewal process.

Why do we have a SAC Insurance Plan?

SAC maintains a group insurance plan in order to help ensure that continuing high-quality aircraft hull, liability and airport premises insurance is available for all SAC clubs and their members. The plan is structured as a "group plan" to take the most effective advantage of our member volume and provide uniform flexible coverage.

What does a group insurance plan do? This quote comes from another non-aviation insurance plan, but I think applies quite well to our insurance plan:

"What it may not do is to provide the absolute best price that any particular member of the group might get, but it does strive to charge a reasonable average price for members of the group. Therefore a few may be able to find better rates outside the group. What a group policy does strive to do is to provide a solid policy at a fair price for all members of the group, so that members of the group can get coverage that might otherwise be unavailable to them."

For most members of SAC, this means that the price will be close to, or lower than they can get elsewhere for the broadest, stable coverage available.

What we get for our premiums – major points

While we are all aware of the insurance premium we pay at the beginning of the year, what exactly are we buying with it? While this touches on the major points, both the

plan coverage summary and policy document are available from your club treasurer. It should be required reading for all club executives and private owners. This helps to ensure that you know what is being provided and also what your responsibilities are. Claims reporting guides are also available to keep in your aircraft should an accident occur.

Who and what is covered?

- *All SAC members* (student and licensed) when flying SAC insured gliders and towplanes. There are currently no requirements for specific experience. It is important for clubs to ensure that their members' SAC dues have been submitted in a timely manner.
- *Guests* (FAI-affiliated members eg. SSA, BGA) when flying SAC insured aircraft.
- *Private and club aircraft* listed under the plan are insured for "pleasure and club business".
- *Gliders* – instruction and rental to club members and guests. Intros are classified as "day members", so clubs should try to ensure that some type of day member form is completed. Everyone receiving formal instruction as a regular club member should be a SAC member.
- *Towplanes* – towing gliders and instruction of towpilots but NOT any other use of the towplane for hire or reward (this means club members and the towplane are NOT covered if members are using them for personal pleasure flying and log time accumulation).

Hull liability This is the coverage that covers most accident damage to your aircraft. It covers the aircraft and its normally installed permanent equipment. You purchase a specified value of coverage for each aircraft that should reflect the value of the aircraft and its normally mounted equipment and instruments. This does NOT include your glider trailer. It is not a good idea to "under-insure" your glider. One way to view this is that the insured value should be an amount that you would be happy to receive if your glider suddenly disappeared from your trailer. There is currently a \$500 deductible per incident for hull coverage. There are options to increase the hull deductible to either 5% or 10% of the hull value,

providing a decrease in the premium. Many other aviation policies and recent proposals have higher minimum deductibles.

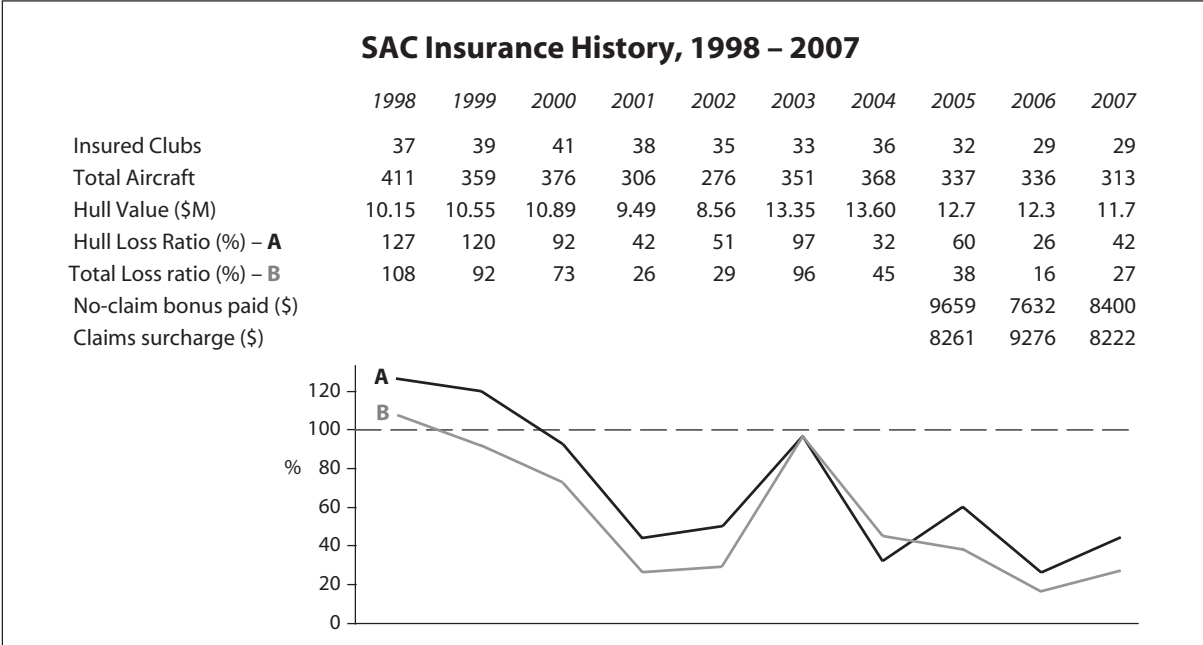
General aircraft liability This coverage provides payment in the case of damage to other property, other people or you that may occur involving your aircraft while it is "in motion". Claims in this area are the ones that are potentially HUGE. Imagine the medical bills should a bystander or passenger be injured while operating your glider. Coverage is available in \$1M and \$2M amounts per aircraft and, unlike some policies we have reviewed in the past, the complete amount is available regardless of the number of people involved or type of expense. There is no deductible for this coverage.

Minimum liability coverage on all private gliders under the plan is \$1M per seat. Minimum liability coverage for club aircraft is \$2M per aircraft. The primary reason for the higher club limit is that past club liability settlements have exceeded \$1M at least in part because clubs are seen to be held to a higher standard of "duty of care" than private owners.

Premises liability Coverage for all clubs is mandatory. This covers airport premises and operations other than aircraft to a liability limit of \$3M. This coverage provides important protection to clubs for damages and injuries that could occur on their airfield (owned or leased), which do not involve aircraft. This coverage in the general marketplace typically costs a minimum of \$2500. The premises liability coverage also provides \$100,000 coverage for "Instructor Errors and Omissions".

Claims service and legal representation The insurance company provides claims adjustment and legal representation for all claims. Costs of defending a claim, particularly liability claims, can be substantial and are paid over and above the coverage limits purchased.

Here's hoping a fun, challenging and safe year of flying for everyone in 2008. ❖



Ralph Wiseman, 1917-2007 a gliding pioneer

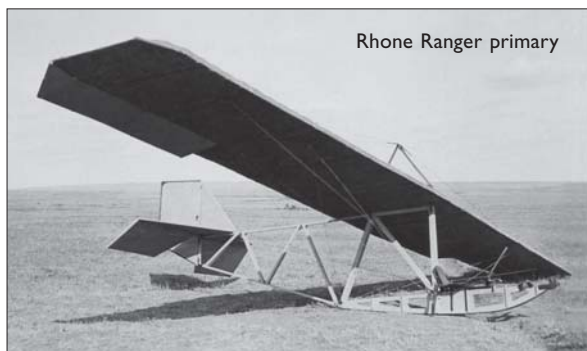
John Toles, Saskatoon

WE HAVE LOST ANOTHER of Canada's great soaring oldtimers. Ralph Wiseman may not be a name that many will recognize. He quietly went about building a legacy of silent flight starting in the 1930's and continuing for more than fifty years. His last involvement was as a non-flying participant at a national competition in Brandon in 1998.

His name is not in the *Book of the Best* and badges and contests were never his ambition. His name appears just once in the *free flight* archives, a brief reference to his glider in the 5/2000 article, "Grunau Baby Days – part 2." The reference is actually to an entry in *free flight* by Doug Shenstone in 1951: "Ralph Wiseman of Rosetown, Sask. reports that GB [Grunau Baby] CF-ZBT has been completed. The distance from Rosetown to Calgary is greater than 300 miles where the nearest qualified instructor (Norm Bruce) is located. Getting in the time to secure his licence is going to be a problem."

There were a few obstacles, but no problems that Ralph couldn't overcome. Getting an aviation licence to fly the Grunau Baby was a necessary formality at the time. When Ralph taught himself to fly, there were no glider pilot licences. As far as I know, he never had a lesson in a two-seat glider until regulations required a licence. He was issued "Student Glider Pilot Permit No. WG-187" at Winnipeg in 1961, followed in short order by a Glider Pilot licence.

Ralph was born in Moosomin, SK in 1917, but grew up in Swift Current. From early boyhood he was fascinated with flying. When he was 13, his father, Richard, bought him a Mead primary glider kit – the *Rhone Ranger*. Richard told Ralph's mother that it would "keep him out of mischief". It took him over a year to build, and he helped a friend, Harold Forsythe, to build a Wright type glider. They flew them at the North Hills near Swift Current. They initially used a bungee constructed of inner tubes as a launch method, later a car and rope launch.



Rhone Ranger primary



In 1944 Ralph, then employed in Rosetown, acquired the plans for a Grunau Baby II. The plans were in German, but as he commented, "translations were not essential as the plans were clear, but specifications were difficult". It was completed in 1951 after 5000 hours of construction. I have the original Glider Pilot's Log Book No. 2042 on loan from Ralph's daughter, Sharon. The test flights were conducted by Norman Bruce on 19 May 1951. The take-off place was entered as "airport", but not specified as to Rosetown or Calgary. Tow was by "car". The first two entries had the remark, "ground slides". The first two flights were to heights of 5, then 10 feet. The final test flight was to 300 feet, remarks indicating "180° turn, downwind landing OK. Glider OK. No faults". The certification carried the comment, "Glider flies OK, airspeed 38 mph is plenty fast."

The next entries begin 22 Sept 1951, at Rosetown, with Norman Bruce supervising instruction. There are 22 entries for that date, car launch, heights from 5 feet progressing to 120 feet. The last entry for the day states "A" licence test check N. Bruce." The next day, he logged nine more launches to heights of 300 feet and the last remark simply states "B" licence. It was next flown on 7 July 1952. During a five day period, a total of 68 auto launches were logged with release heights to 800 feet. The first real soaring flight was recorded by Norman Bruce at 1:20 hours to a height of 4600 feet. Aerotows began in August using a Piper Cub off the Rosetown airport. The highest altitude recorded year was a year later at 11,400 feet. The longest cross-country was a Rosetown to Moose Jaw O&R, just short of 400 km!

Ralph sold the Grunau to the Regina club in the early 60's. From there, it went to Hope, BC to a syndicate of ten pilots. One of them was Dave Baker, who flew it often and got his Gold distance in it. Dave wrote a funny story about this Chipman to North Battleford adventure in *free flight* 5/1979, "Across the prairies by Grunau Baby, or, it sure beats a covered wagon but not by much."

His next sailplane was a BG-12A that he and Art Penz built from a kit. When Art moved to the States, Ralph bought his share and continued to fly it with the ➔ p17

Sporting committee activities

Jörg Stieber, chairman

IGC annual meeting I attended the annual IGC Plenary Meeting on 2-3 March 2007 in Lausanne, Switzerland. Agenda, key decisions and minutes of IGC meetings are posted at <www.fai.org/gliding/meetings>. One of the major decisions was to overhaul the text of the Sporting Code dealing with badge and record flights. Cameras for turnpoint verification will be eliminated and selected off-the-shelf (COTS) GPS units may be used for Silver and Gold badge flight verification when used in conjunction with a pressure barograph. The choice of what units will be acceptable is up to each national organization based on minimum criteria set by the IGC, and the committee will be working on that this year. Since the changes to the text will be extensive, the new Code will be a new edition rather than being an amended 1999 version.

However, the new Code was NOT approved at the recent IGC meeting. There was some resistance to the concept and other delegates felt that they needed to study the implications more. The final vote has been moved to March 2009.

2007 Nationals The contest rules underwent a minor update to remove some ambiguities and to reflect the realities of Canadian contests. The turnout was rather disappointing with only 12 competitors in one handicapped Racing class. Though the weather was not particularly strong, it turned out to be a good competition with six contest days and no accidents. There were a few minor, possibly software related, scoring inconsistencies (a minor bug in the *Winscore* scoring software needs to be solved). However, the possible errors were not significant enough to affect the placing of the top-seeded pilots. The winners were:

- | | |
|------------------------------------|-------------|
| 1. Willem Langelaan | 4438 points |
| 2. Jerzy Szemplinski | 3970 points |
| 3. Dave Springford / Nick Bonnière | 3872 points |

On behalf of the participating pilots, the Sporting committee thanks Montreal Soaring Council for hosting the contest, and particularly Contest Manager Robert Katz and Contest Director Denis Trudel for their efforts and time to organize the competition. (A detailed account of the Nationals was published in *free flight* 4/07.)

Skip the 2008 Nationals? Given the low attendance at the last two Nationals and the fact that, to date, no club has agreed to host it this year, the committee suggests skipping the Nationals in 2008, the expectation being that this will create more interest among pilots to compete in Canadian Nationals in 2009. There are suggestions to conduct a cross-country fun-fly at MSC and/or run a Canadian Team training and coaching contest at SOSA, with all members of the Canadian Team coaching the next generation of champions (see *news on page 17*). A message to this effect has been posted on the Roundtable. A final decision will be based on the response.

How the Canadian Team gets selected When I started flying competitively in the 80's, the pilots to represent Canada in World Championships were chosen by their peers from a pool of qualified pilots. This method certainly had some elements of a popularity contest, and factors other than the pilots' abilities played a role. Some pilots thought it was good to consider the "soft" factors in addition to the flying ability, others advocated going to a hundred percent objective selection process.

In the early 90's we adopted a selection procedure based on a seeding list derived entirely from contest results of the previous three years. The results of the most recent Nationals count for 70% of the selection score, and the best results of one of the two previous Nationals count for 30%. A pilot can qualify for the team by participating in two Nationals within three years, provided he flies in the most recent Nationals.

This is the basis on which the members of the Canadian Team for the World championships 2008 were selected (the complete seeding list is posted in the Document Vault of the SAC website and in *free flight* 1/08 p18). The five top seeded pilots are eligible Team members, provided that their individual scores are at least 85%. The pilots scoring greater than 85% were: Willem Langelaan - 97.33% , Jerzy Szemplinski - 92.62%, Dave Springford - 91.07%, and Nick Bonnière - 90.24%.

Over the years we have done some fine-tuning to select the best pilots and to achieve a good balance between the following two objectives: consistency versus recent performance, and international experience versus presence at Canadian Nationals.

Consistency versus recent performance Pilots who have shown consistent performance over a number of Nationals obviously have proven that they can do well beyond the luck factor. On the other hand, there is a need to emphasize recent performance to ensure the pilots we send to the Worlds are still sharp. We also want to motivate "rising stars" by giving them an opportunity to make the team without a multi-year qualification procedure. To this end, we look back only three years. The results of the most recent Nationals count for 70% of the score, the results of one of the two previous Nationals count for 30%. A pilot can qualify for the team by participating in two nationals within three years, provided he flies in the most recent Nationals. A "rising star" can qualify within two years.

International experience or presence in Canadian Nationals Participation in Canadian Nationals alone does not prepare a pilot well for the Worlds, where it is not unusual to have 50 gliders in one class and 130 in the contest, all in an extremely competitive environment. On the other hand, we want our top pilots to compete in our ⇨ **p22**

Miscellany

Odds & ends on O₂ equipment

I was able to discuss the subject of oxygen systems, gas alternatives, etc. with the expert at Australian Defence Science and Technology Organization (DSTO) – it is sort of as close as this country comes to a body like NASA in aeronautics research, and the experience base is pretty deep albeit mainly to do with military matters; it was a learning experience for me in a number of ways. It turns out that SCUBA tanks are actually okay for carrying oxygen (if clean) and were actually used in Mirage jets some years ago.

The real problems arise from the explosive potential of pure oxygen in the presence of *anything* combustible – even metals like aluminum and stainless steel. I was shown a film of instantaneous flash fires – indistinguishable from an explosion to me – caused by rapid oxidation of Teflon gas lines, stainless steel fittings and various pipes, fittings, braided hose, etc – all without any apparent ignition source or flame. There have been quite a few other “spontaneous combustion” type events – all without any external sparks or open flame.

A high pressure oxygen bottle can create a supersonic shock wave inside a delivery pipe when the bottle valve is opened suddenly (it is often hard to do otherwise with stiction on needle valves) and this can result in adiabatic heating that can raise temperatures to over 700° when the emerging gas runs up against a dead end or even a big restriction. This is the principle used in a hypersonic shock tunnel and not unlike the diesel engine combustion process with compression causing a temperature rise sufficient to ignite the fuel. It can also get metals up to burning temperature, which is quite low in pure oxygen. The actual mechanism is a bit obscure but the results sure aren't – imagine a magnesium flare – and it is instantaneous.

One example was a stainless T-fitting disintegrating in a shower of sparks – stainless steel is a poor conductor of heat and can get extremely local hot spots. I was surprised that “unburnable” Teflon will just explode in pure oxygen, it is nothing like its normal combustion in air.

The best materials to use are brass, Monel and bronze and copper lines (with pig-tails to allow for bending from internal pressure and reduce fatigue). There is a special copper-aluminum alloy made for oxygen lines called Tuggan that will not spark or work-harden appreciably. In any event, a short section of copper tubing should be used before any blank end or regulator/shut-off valve, etc. so that adiabatic heat rise can be dissipated harmlessly.

Argon is apparently not a problem in an oxygen system in trace amounts, either from a physiological or safety aspect, so the possibility of incomplete purging of filling lines does not look like a problem either. The on-board oxygen generators used by some air forces and medical facilities create byproduct argon without any ill effects and no effort is made to remove it.

The infamous Kapton wiring insulation breakdown is another ‘sleeper’ fire risk that has gone quiet in recent times and I guess the aircraft oxygen risk is another one that usually just lurks without incident. It might pay to look at MIL handbook or the FAA regs on oxygen system design for a few pointers on checking your existing or planned system if you are installing your own. It seems like medical or other oxygen will be okay in itself as long as no combustible gases like acetylene or methane are present – a possibility from a welding supplies company filling your tank with aviation oxygen.

Further to the oxygen fire phenomenon – it might not have been clear from the medivac helicopter analysis (I think it was a preliminary report, but it had links to the final one) – the actual cause of ignition in that case (and others) was contamination in the oxygen stream being heated by aerokinetic effects (like re-entry heating of a spacecraft, supersonic aircraft or missile) through an inadvertent restriction caused by over-swaging of a coupling. This created a venturi and cracked plating and/or corrosion on the inner surface of the pipe – the high gas velocity turns the metal flake incandescent and it detached and contacted the inside of the rubber/plastic hose causing self-ignition.

The significance is that even tiny specks of foreign matter in the air system or bottle can become like diesel glow plugs and trigger flash fire downstream. This is why it is so important to have clean tanks to begin with – old SCUBA tanks could have got sea water inside or just accumulated moisture from internal condensation when ambient air (not dry oxygen) was being compressed in them beforehand. Apparently the size and shape of the local SCUBA tanks just suited the space available in the RAAF Mirage and got tested and approved thereby.

Ross Nolan

from the *hp-gliders yahoo newsgroup*

free flight CD – \$6

163 issues of *free flight* – 1/1981 to now, and 81 large format soaring photos. 471 MB. Great for club “slideshow” & computer wallpaper. Order from editor.



Nicole Kattler wins 2007 Corley Scholarship

I joined Air Cadets at age 12, which is where I got my interest in flying. I earned my glider pilot licence in September 2005. I started my gliding career through cadets and continued at a civilian gliding club, CAGC, in Innisfail, where I met a lot of great people who are very supportive and encouraging to young pilots like myself. At the moment I don't get to fly as much as I would like with school assignments, attending air cadets (at least until 17 Feb when I become 19), and working at my job, but I try to get out as much as I can.

I am 18 and now in my first year of school in the Bachelor of Nursing program at Mount Royal College in Calgary. Being a nurse has been my dream since I was about 15. I have a good family friend who is a nurse and she has attended to our many minor wounds, bumps and bruises over the years. Seeing the care and compassion she had and listening to her nursing stories led me to want to do the same for people.

I love to fly, not many people get to experience what it is like to be in control of an aircraft. I plan to continue flying for a long time and I hope more young people join me at this great sport.

SAC insurance drops 10%

The bid process for the 2008 SAC aviation insurance policy is complete. In conjunction with Jones Brown Inc., bids were requested from seven insurers, including our current underwriter. As seems usual, some companies declined for various reasons. We did receive positive interest from two companies, neither of which presented any substantive benefit when compared with the response from our current underwriter.

Ralph Wiseman ... from page 14

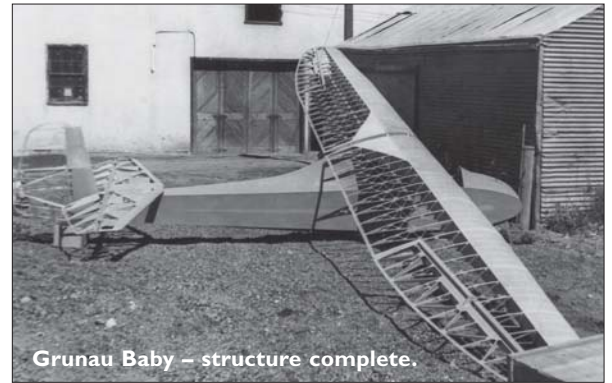
Saskatoon Soaring Club flying from Colonsay, SK. The BG-12 was eventually sold to the Winnipeg Gliding Club.

Art was also working on an HP-11A when he moved. Ralph bought it, completed it, and flew it from the Saskatoon club field at Vanscoy, SK for a couple of years. It was a modified design suitable for installation of a retractable engine for self-launching. However, before the engine was installed, the glider sustained damage to a wing and aileron when a skydiver sharing the same airport landed on it while it was tied down. When the Saskatoon club moved to Cudworth Airport, it was a long drive from Rosetown, and Ralph sold the glider to a member of the Saskatoon club. It flew from Cudworth for a few years, and is currently for sale.

Although he didn't fly after selling the HP-11, he maintained an interest in gliding, often visiting airports and glider meets when he

travelled. He was a member of the Soaring Society of America from 1935 until he quit flying, and a member of SAC from its beginning until recently. He kept every magazine from both organizations, as well as a collection of soaring books. These were donated to the Saskatoon club a couple of years ago by his daughter, Sharon, when Ralph could no longer live in his house in Rosetown.

Ralph had a passion for life that extended beyond flying to many other activities. He got his first motorcycle as a teenager. As well as flying, playing motorcycle polo, and touring with wife Marjorie were favourite activities. He didn't give up riding until he was nearly eighty. He was a skilled carpenter, enjoyed renovating houses and, when he retired in 1982, designed and built their retirement house in Rosetown. He and Marjorie travelled with friends and family to many



Grunau Baby – structure complete.

parts of the world. Ralph served on the Town Council, the Hospital Board, and the Library Board. He was a member of the Lions and the model airplane club.

I knew of Ralph more than really knowing him, but I do have fond memories of his involvement with the Saskatoon club when he had his glider at Vanscoy, and of his flying stories from the early years. ❖

I am pleased to report that we were able to negotiate an overall average 10% decrease in premiums while continuing to provide all the existing options and coverage we have had in the past for all SAC members.

This reduction is in addition to the approximately \$8000 which will be rebated this year to clubs and private owners having no claims history. Furthermore, coverage has again been extended at no charge for an additional 13th month for all existing insured aircraft to shift the insurance year from 1 March to 1 April, closer to the start of the soaring season and club revenues, and coincident with the SAC membership year.

The continued decrease in rates has been largely possible by the fact that our collective claims history continues on a positive trend, despite a blip up last year. Good job everyone!

The renewal forms have been simplified this year. The forms have become more complex as the options and choices available under the plan have expanded over the past several years. We have been seeing an increase in errors during their completion as well as many people contacting either myself or Jones Brown for confirmation.

Keith Hay
SAC Insurance committee

SOSA to host cross-country training camp and contest

The Canadian Soaring Team and Canadian Advanced Soaring are joining force this summer for nine days from Saturday, 28 June to Sunday, 6 July to sponsor a fun contest at SOSA with particular emphasis on coaching those who are new to cross-country and contest flying. These dates encompass two week-

ends, including the Canada Day holiday and require only four vacation days for nine days of flying!

This will be a nine day learning experience with morning seminars followed by contest tasks in the afternoon. The morning seminars will include some of the finer points of racing and cross-country flying and will be given by Canadian Team members and CAS clinicians. Many topics such as thermalling, inter-thermal cruising, final glides, contest and task strategy will be covered. The daily pilot meeting will also include in-depth weather analysis and commentary on how it relates to the day's task. The previous day winner will also discuss, with the aid of *SeeYou*, their flight and the decisions they made that resulted in the win!

Scoring for the contest will use the Canadian rules and *Winscore*. As a trial this year, we will use the BGA handicap system instead of the US handicaps. The BGA handicaps can be found on p25 of <www.gliding.co.uk/forms/competitionrules2007.pdf>.

Entry fee for the Training Camp and Contest will be \$200 with net proceeds going to the Canadian Team Fund. Tows will be billed at normal club rates for all participants. We will also plan some social activities and BBQs on the weekends and during the week. If you cannot attend the entire period – no problem – come as many days as you can.

Anyone who is interested in participating, please send a note to Dave Springford at: <dave@sosaglidingclub.com>

We hope to see all aspiring cross-country and contest pilots at this exciting new event!

Dave Springford

Charles Petersen honoured

Charles Petersen was selected as the winner of the "Get Active Award for an Individual". The award recognizes those in the community who have worked extremely hard to promote inclusive, active living opportunities for people with disabilities. *Get Active Now – Active Living Resource Centre for Ontarians with a Disability* has an award program to show its gratitude and appreciation to outstanding organizations and persons. It recognizes the efforts and achievements of his commitment to the community and serves as a reminder of the goal of this disability organization, to allow everyone to get active now. The award was announced on 15 February, as well as a media release to various organizations.

The Board and staff of *Get Active Now* congratulates and thanks a dedicated individual who is such a great role model for active living and the disabled community.

Frank Prospero, Exec Dir – *Get Active Now*



LET'S GO, CLUBS

– Support the Canadian Team –
Plan a spring intro weekend with some proceeds for Willem, Jerzy and Dave.

Club News

2007 Trophies & Awards

The beginning of the season is a great time to encourage club members to make use of the OLC. What are your flying goals for 2008?

Flight Trophies

Canadair Trophy – Best 6 flights of the year – motorglider

Hans Binder – Canadian Rockies
4361.6 OLC points, 5316.7 km total

Canadair Trophy – Best 6 flights of the year – pure glider

Tim Wood – York Soaring
4348.7 OLC points, 5020.5 km total

BAIC Trophy – Best flight – Pure glider

Tim Wood – York Soaring
918.4 km / 804.1 OLC points

(Though not earning the BAIC, we recognize the fine 1001.4 km flight of Allan Spurgeon out of Invermere, BC that gave him 773 OLC points.)

"200" Trophy

best 6 flights – pilot <200 hrs P1 at season start

Randy Neilson – Great Lakes Gliding
2122.1 OLC points, 2163.2 km total
ASW-19, C-FIKJ – All flights at Colgan, ON

Stachow Trophy (highest altitude)

Phil Stade (P1) with Steve Hogg, Cu Nim
Cowley, 30 Sept, IS32 C-FAOA
absolute 25,342 feet (gain 20,741 ft)

Competition Trophies

These trophies were awarded at the Nationals at Hawkesbury, ON (report in *free flight* 4/06).

CALPA trophy – Racing class Champion
Willem Langelaan – DG-808S – 4438 pts

Dow trophy – Best task flown
Dave Springford

Carling O'Keefe trophy – Best team
Chris Gough / Jay Allardyce

SOSA trophy – Best novice – Tim Tuck

Other Trophies

Roden trophy – to the club that, for its size, develops the soaring skills of the largest numbers of its pilots and is consistently aggressive in badge development.

Central Alberta Gliding

282.35 points for 17 members
badges: 1 A, 5 C, and 8 Bronze
badge legs: 6 Silver C, 2 Gold/Diamond

Walter Piercy trophy (instructor of the year)
Jean Richard, MSC

Jean has been the backbone of instructing at MSC. In 2007, he did almost half of the total instructional flights at the club, some 207 flights. Also, Jean interacts regularly with the Flight Training & Safety committee on training matters. He was highly recommended for this award.

All about ACES

ACES (Air Currency Enhancement Society) was formed in early 1991. The society arose from discussions of the officers at the Regional Gliding School (Atlantic) of the Air Cadets. ACES was incorporated 29 May 1991 as the Air Currency Enhancement Society. The name was chosen to reflect the fact that the society would have access to and be using C-FACE, one of two original RGS(A) 2-22's. The society was strong until about 1994. ACES was composed of 28 members and regularly distributed a newsletter, *Call Sign*.

The following is ACES flight history:

1994 - 18 flights	2000 - 126
1995 - 12	2001 - 103
1996 - 44	2002 - 282
1997 - 4	2003 - 24
	2005 - 25

... then Hurricane Juan blew through that fall and demolished our serviceable 2-22, GACH, by putting a 90 degree twist in its rear fuselage while it was tied down. 1997 was a low year as our only serviceable 2-22 at the time failed its annual inspection. Rather than refurbishing it, we got another one. Over 2005-2007, enough interest was generated to form

a syndicate to get a 1-26 for the club. In the summer and fall of 2007, we acquired two 1-26s, C-FZDF from the Regina club and later C-FZDD from the Gatineau. The 1-26 was selected based on club goals and plans.

To date we have been successful in generating interest and members. We're just a young start-up club struggling to find that magic formula that increases membership along with revenue to further our development.

One of our priorities is to provide youth the resources to further their gliding/soaring skills and generate a renewed interest in soaring in Atlantic Canada. We are currently restoring C-FACE with no firm completion date. It's a work-and-learn project. I'm sure you're asking yourself how many 2-22's does this club have, and why? Well, we have pieces of four 2-22's, and I can't explain "why?"

As you can see from the photo, we have been active, even in the winter months. We've got a lot of work to do, but have a young and enthusiastic membership to help make us successful. Since 2005 and a low of six members, we have essentially doubled each year and now stand at about 24. Our fees have increased to accommodate our flight operations and plans are being formulated to keep us moving forward.

Robert Francis



Neil Wothers

Ahh, winter – you all know what that was like in Nova Scotia this year. Nevertheless, here is ACES out on the snowdrift-bordered runway at Debert on 13 January with ZDF, preparing for a winch launch. ZDF has a sparkling history, being the 1-26 that Julien Audette, Canada's first Diamond badge pilot, owned. It was brand new in 1957, and in 1958 Julien earned his Diamond Goal on an O&R flight of 322 km out of Wenatchee, WA and a Distance-to-Goal record of 380 km flying from Lumsden, SK to Minot, N. Dakota.

Hank Janzen trophy (club or pilot with best contribution in the year to flight safety)

Ian Oldaker, SOSA

Ian "retired" a year ago after 30 years as the chairman of the Flight Training & Safety committee, first serving in the position in 1977. His exemplary work in aviation safety has been recognized outside SAC, earning the Canadian Airline Pilots Association (CALPA) award in 1993, the Canadian Aviation Safety Award from Transport Canada in 2000, and he became the chairman of FAI's OSTIV Training and Safety Panel in 2004.

His major recent work has been the hundreds of hours of effort that has gone into developing the Safety Management Program for soaring. Borrowing practical ideas from similar programs in government and industry, this dynamic and interactive club safety process is beginning an effective and positive Safety Culture within SAC – it has already helped to reduce accidents.

Complete details of the trophies and flight info is in "2007 SAC Annual Reports" on SAC Documents page. **Phil Stade**, Awards chairman



Pat O'Donnell

Ahh, spring ... a sudden shower delays Les Waller's flight at SOSA a couple of years ago. Withold (Vtek) Pruchnicki and his friend took advantage of the Blanik's large wing to avoid a soaking. A few minutes later the sun came out and flying resumed with good lift.



Fred Bethwith

It was one of those nice fall days in Manitoba, but you had the sense there weren't too many left like that. We launched fourteen flights that afternoon at Starbuck, a good day at the Winnipeg Gliding Club. Doug Cameron waits with Art Grant for his turn to launch. I think it really captures the spirit of our club – members helping each other out and enjoying the company of fellow pilots.

an AFH-3 update

from page 6

I'm still working on the RV-6 kit I started a few years ago but progress is slow. I now have an RV-6 tail-dragger with an IO-360 (200 hp) that I got from Texas last summer. I have looked into installing a tow hook – the RV-6 designer says that it would be able to tow as long as the airspeed is at least 80 mph. ❖

Winning ...

from page 7

of the winners score. I didn't win any days, but I also didn't lose any – on two days I scored 96%, and on the remaining three days I scored 99%. The lesson here is that consistent flying is crucial to winning contests. Consistently winning every day would be good too, but the nature of this sport makes that rarely possible. Some days the strategy has to turn from winning the day to not losing it.

If you find yourself in a position where you have dropped out of your preferred working band for the day and are fast approaching survival mode, you need to focus your attention on finding lift to get you back on track. It's easy at times like this to let your thoughts stray and imagine everyone else sailing along at 5000 feet. This is going to improve your flying! Throw all of your mental effort into digging yourself out of the hole, look for any clue that will help. While in one of these holes I saw the flicker of a swallow's wings about 50 feet away. I immediately turned and was rewarded with a climb that got me back in the race. I didn't win that day, but I didn't lose it either.

I have flown many contests where one or more bad days have knocked me a long way down the score sheet, so when things get tough – dump the negative thoughts and focus on things that will help and don't lose your focus or the day. Remember, consistency wins contests. ❖

CANADIAN RECORDS (as of 24 Nov 2007)

T A record set within Canada – is only shown if "C" record included.
 C Indicates a record by a Canadian citizen originating outside the country.
 (These are noted only when a greater "Territorial" record does not exist.)

RECORD	OPEN	15 METRE	CLUB	FEMININE	MULTIPLACE
DISTANCE (km)					
3.1.4a Free distance	MarSDen / Apps 1093.0	1093.0	Mike Glatious 480.6	Ursula Wiese 607.0	Chester Zwarych (Reg Adam) 495.0
3.1.4b Free out & return	Tim Wood 541.4 T	541.4 T	Tim Wood 476.4 T	not claimed	not claimed
3.1.4c Free 3 TP dist.	Tracie Wark 750.2 C	750.2 C	Tracie Wark 633.2 C	Tracie Wark 750.2 C	Charles Yeates (Kris Yeates) 313.8 C
3.1.4d Free triangle dist.	Tim Wood 871.9 T	871.9	Mike Glatious 869.3 T	Sue Evans 508.7 T	Trevor Florence (J King) 669.0
3.1.4e Straight dist. to goal	Brian Milner 1394.0 C	1394.0 C	Jerzy Szemplinski 947.6 C	Tracie Wark 592.6 C	2000
3.1.4f 3 TP distance	Tim Wood 481.0	481.0	Tim Wood 515.7 T	Tracie Wark 523.2 C	2007
3.1.4g Out & return dist.	MarSDen /Apps 707	707	Tim Wood 236.7	Antonia Williams 305.0 C	1975
3.1.4h Triangle distance	Jerzy Szemplinski 642.7 T	642.7 T	Tim Wood 565.6 T	not claimed	not claimed
	Tim Wood 760.0 C	760.0 C	Jerzy Szemplinski 715.2 C	Ursula Wiese 328.0	Dave Marsden (Ed Dumas) 421.5 T
	Tony Burton 652.3 T	652.3 T	Pat Templeton 442.9 T	Tracie Wark 510.3 C	Charles Yeates (Kris Yeates) 506.9 C
	Brian Milner 1128.9 C	1032.1 C	Tony Burton 525.5 C	Jane Midwinter 317.6 T	John Firth (Dan Webber) 510.4 T
	Hal Werneburg 803.7 T	803.7 T	Spencer Robinson 655.9 C	Tracie Wark 502.9 C	1988
	Peter Masak 1007.0 C	1007.0 C			2006
ALTITUDE (m)					
3.1.4k Absolute Altitude	Bruce Hea 10485 T	15m record claims must exceed listed starter values		Deirdre Duffy 8986 T	Bob Shirley (P Campbell) 9083 T
3.1.4m Gain of Height	Walter Chmela 12449 C			A. Cservenka 9772 C	W. Chmela (VanMatulik) 10390 C
	Dave Mercer 8458			Deirdre Duffy 6575	Bob Shirley (P Campbell) 7102
					1991
					1969
					1991
SPEED, ▲ (km/h)					
3.1.4j 100 km	David Mercer 141.5 T	141.5 T	David Mercer 133.0	Tracie Wark 105.0 C	Dave Marsden (M Jones) 98.1 T
SAC 200 km	Dale Kramer 168.1 C	168.1 C	Tony Burton 99.0	Tracie Wark 99.9 C	Charles Yeates (Kris Yeates) 125.6 C
3.1.4k 300 km	John Firth 110.6 T	2007	Tony Burton 78.2 T	Tracie Wark 99.1	Lloyd Bungey (Tony Burton) 76.0 T
SAC 400 km	Charles Yeates 116.3 C	113.1	Dave Springfield 108.0 C	Tracie Wark 95.0 C	D Springfield (P Templeton) 108.5 C
3.1.4l 500 km	Peter Masak 148.9 C	148.9 C	Tony Burton 103.3 T	Tracie Wark 95.0 C	A Kawzowicz (John Brennan) 87.1 T
SAC 500 km	Peter Masak 140.1 C	111.8 C	Rolf Siebert 128.9 C	Tracie Wark 112.9 C	Ian Spence (JR Fallu) 128.5 C
3.1.4j 750 km	Walter Weir 105.7 T	105.7	Tracie Wark 97.4 C		A Kawzowicz (A Marcellissen) 85.0
3.1.4j 750 km	Peter Masak 151.2 C	108.8	Spencer Robinson 103.6 C		John Firth (Danny Webber) 88.8 C
3.1.4j 1000 km	Willi Krug 108.8 T	108.8	not claimed		not claimed
	Spencer Robinson 118.7 C	106.5 C	not claimed		not claimed
	Peter Masak 106.5 C	106.5 C			not claimed
					not claimed
SPEED, O&R (km/h)					
SAC 300 km	Hal Werneburg 115.2 T	115.2 T	Bruce Friesen 113.6 T	Ursula Wiese 59.6 T	W. Chmela (H Rominger) 65.0 C
3.1.4i 500 km	Walter Weir 191.3 C	191.3 C	Jerzy Szemplinski 125.4 C	Tracie Wark 132.3 C	1976
SAC 750 km	Kevin Bennett 126.3 T	126.3 T	Jerzy Szemplinski 125.4 C	Tracie Wark 99.6 C	Charles Yeates (Kris Yeates) 79.2
3.1.4i 1000 km	Walter Weir 150.9 C	150.9 C	not claimed	not claimed	2007
	Walter Weir 145.0 C	145.0 C	not claimed	not claimed	not claimed
	Brian Milner 147.0 C	142.6 C	not claimed	not claimed	not claimed
SPEED, GOAL (km/h)					
SAC 100 km	David Mercer 167.0 T	167.0	David Mercer 156.9 T	Tracie Wark 106.4 C	Trevor Florence (N Marsh) 105.1
SAC 200 km	Rolf Siebert 183.7 C	183.7 C	Rolf Siebert 169.0 C	Tracie Wark 129.1 C	2000
SAC 300 km	Kevin Bennett 125.9 T	125.9 T	Tony Burton 113.2 C		Trevor Florence (J King) 91.5
SAC 400 km	Walter Weir 143.0 C	143.0 C	Jerzy Szemplinski 127.6 C		2002
SAC 500 km	Wolf Mix 108.6 T	108.6 T	Tim Wood 92.1 T		Jock Proudfoot (G Fitzhugh) 70.2 C
SAC 750 km	Walter Weir 145.9 C	145.9 C	Dave Springfield 97.5 C		1981
SAC 1000 km	Tony Burton 81.5	81.5	not claimed	not claimed	not claimed
SAC 500 km	Dave Marsden 97.1 T	77.1 T	not claimed	not claimed	not claimed
	Walter Weir 138.4 C	138.4 C	not claimed	not claimed	not claimed

FAI badges

Walter Weir

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

2007 Annual report

Planning for badge flights is a good winter activity. For cross-country flights you can plan several possible routes then, when a good day comes, you can choose from among them depending on the wind and the weather. Read the Code so you know what is required. Careful preparation can make the difference between failure and success.

You can download the Sporting Code from the new SAC website <www.sac.ca>; click on "Document Vault" in the left hand menu bar. You don't need to read the whole thing. However, what you do need you should print so that you can easily work back and forth through the pages you require. Print out Chapter 2, FAI BADGES, which is only two pages. Then you will also need Chapter 1, GENERAL RULES and DEFINITIONS which is six pages long and Chapter 4, VERIFICATION REQUIREMENTS & METHODS which is another 12 pages.

Now read the two pages of Chapter 2 and refer to Chapter 1 for definitions of the terms used. Only go to Chapter 4 when a reference directs you there.

Questions? E-mail me or check out the *Official Observer & Pilot Guide, Annex C* to Sporting Code, which was mostly written by Tony Burton and is also available on the SAC website.

Part of preparation is to make sure an OO is available. Nothing is more frustrating than finding out that there is no Official Observer on the field when you are ready to go. In the early 80's when I was getting serious about badges and records I made many copies of the OO application form and handed them out at the AGM to every qualified member. We were a small club – but that summer there were no qualified members who were *not* OOs. That's the way it should be in your club. Applicants must be holders of a Silver badge, or be a current SAC instructor, or have been continuously active with soaring activities for the past three years. The OO application is available on the SAC website home page in "Documents Vault" under "Badges & Records".

Table of statistics

As you can see from the table below 2007 has been a good year for badges. Much of the credit goes to "badge mentors" like Carol Mulder of Central Alberta and Jean Richard of Montreal Soaring who take an active interest in the pursuit of FAI badges by club members. I'm convinced that this is a major generator of club moral and enthusiasm. Be a badge mentor for your club! Of the 90 badge legs 17 were Diamond, 13 were Gold, and 60 were Silver.

SAC Badge and badge leg statistics, 1998 – 2007												
	98	99	00	01	02	03	04	05	06	07	5 yr avg	% of avg
1000 km	0	0	1	0	2	0	0	0	0	0	0.0	–%
750 km	–	–	–	–	–	–	–	1	1	2	0.8	250%
Diamond	0	3	2	1	2	1	1	1	0	1	0.8	125%
Gold	2	4	5	5	5	7	2	5	1	2	3.4	59%
Silver	17	17	7	8	19	19	7	7	13	16	12.4	127%
C Badges	34	33	15	38	57	26	18	33	19	27	24.6	110%
Badge legs	87	79	67	71	111	99	51	47	60	90	69.4	130%

FAI records

Roger Hildesheim

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

2007 Annual report


2007 saw the establishment of a new 15m record category. The baseline values for this category were taken from records in the Open category that were flown in a 15m ship and/or best flight(s) that have been recorded for 15m gliders in "The Book of the Best". This has set a realistic and historically accurate bar in the 15m class. Most of the record flying activity this year was lead by Tim Woods who showed us all just how action packed you can make a soaring vacation in Invermere. In summary, twenty claims were submitted and three were rejected.

A couple of problems bit some claims this year. One claim was rejected because the maximum height differential between start and finish (1000m) was exceeded. Another claim was rejected because two different declarations were generated for the same flight. Thanks to Walter Weir's eagle eye (yes, the Badge and Record guys do talk to each other...) we realized that the pilot had one declaration for the badge claim and another declaration (with a different task) for a record claim. The lesson here is simple, only one pre-flight declaration is valid for any one flight.

There is also one issue that you need to be aware of if you are planning to use an electronic logger with a paper declaration – the *most recent* declaration before the flight applies. The subtlety here is that depending on the type of flight recorder you have, your electronic declaration may become valid only when your recorder is turned on in the aircraft. So if a pilot has an old task (that is not being used for this flight) in the flight recorder and also has a paper declaration, the paper declaration must be signed (date and time) after the electronic logger has been activated in the glider. If the paper declaration is signed (date and time) before the flight recorder is activated, the electronic declaration is deemed the most recent and will apply to the flight. The best way to avoid this situation is to make sure your flight recorder is turned on before you sign, date and time your paper declaration.

On another note, I have finally finished generating record certificates for all those pilots who have flown a record since I took over the responsibility of SAC Records chair in 2000 (111 certificates). By the time this report is published, the 111 certificates should be in the hands of the record holders.

The current status of all records is shown on the page opposite.

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Sporting ...

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Canadian Nationals so they can set a standard and be an inspiration to our up-and-coming pilots. In order to achieve a balance, the seeding procedure allows giving credit at the 30% level for US Nationals, pre-Worlds and Worlds. As it makes sense to attend the pre-Worlds one year before the Worlds, attending the Canadian Nationals in the year before the pre-Worlds is scored at 70% rather than 30%.

High level international contests are far more competitive than our Nationals. If we rated a Canadian pilot against say the winner of the Worlds, he would end up with a low score and have no chance to qualify for the team. To compensate for this, we reduce the top score of international contests against which we rate Canadian pilots. For the Worlds we use 80% of the winner's point score, for pre-Worlds 85% and for US Nationals 90%. These benchmarks were established about ten years ago. The performance of Canadian pilots has since improved, so the benchmarks will be reviewed after the Worlds this year and possibly set higher.

In prior years we had seeding lists for 15m, Standard and Club class. In recent Nationals we haven't have enough competitors to form individual FAI classes and we combined the field in a handicapped Racing class which is really a *de facto* Club class. For the lower performing ships and less experienced pilots we also ran what is essentially a Sports class with a wide handicap range. It has been our practice to have only participants of the Racing class eligible for seeding because this class was a combination of 18m, 15m and Standard class. We will have to re-word the seeding procedure to reflect this new reality.

Canadian Team for the 30th Worlds

We will have a strong team for the upcoming 15m/18m World Championships to be held this August in Lüsse, Germany. Our team is: Willem Langelaan, Dave Springford, and Jerzy Szemplinski, with Team Manager Jörg Stieber.

The team is currently working in close co-operation to raise funds and make other preparations. A team presentation for fund-raising has been prepared, but at this point, the team is still \$35,000 short of the expected cost. It is good to see that the Wolf Mix Fund has grown to a level where it provides meaningful financial support to the team.

Suitable gliders are secured, reservations for accommodation have been made, the preliminary registration has been submitted. Getting tow vehicles is still open. A blog has been started to keep SAC members informed about the team's progress and preparations for the big event. Once the team is on site, it will be the medium of up-to-date reporting – see <<http://wgc2008dave.blogspot.com/>>.

2007 On-Line Contest Canada The OLC season last year was excellent. The results

show significant increases over 2006 in terms of total flights and total distance flown.

Number of competitors: 246
Total flights scored in Canada:
2765 – up 42% from 2006
Highest number of flights scored by a club:
485 – Canadian Rockies
Total kilometres scored in Canada:
596,000 – up 43% from 2006
Highest km scored by a single pilot:
28,429 km – Hans Binder
Highest km scored by a club:
127,425 km – Canadian Rockies

A complete summary of the 2007 OLC season is posted on the SAC website. Predictably, the first four places for the OLC classic are identical in the national score and the score for BC/AB. The results for the FAI-OLC show a somewhat more level playing field.

International Competition Calendar

The complete calendar is posted at <<http://events.fai.org/gliding/igc-calendar.asp>>. Some highlights are:

- 6 July** 30th FAI World Gliding Championships (World Class, Std Class, Club Class), Rieti (Italy)
- 16 July** 2008 Coupe du Monde de Vol à Voile en Montagne, Vinon, France
- 20 July** German Women's Gliding Championships
- 2 Aug** 30th World Gliding Championship (Open/18m/15m), Lüsse, Germany.
- In 2009**
- 7 June** World Air Games, Torino (Italy)

21 June 6th FAI Junior World Gliding Championships, Räyskälä (Finland)

25 July 5th Women's World Gliding Championships, Szeged (Hungary).

Acknowledgements

I want to thank my fellow committee member *Walter Weir* for his well-considered advice, *Susan Snell* for maintaining the contest letter website, and *Ursula Wiese* for maintaining the "Book of the Best", the comprehensive history of Nationals results, records and trophies. ❖

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