







Scenes from 2016 Canadian Nationals: Chris and Andy Gough (top), Robert Zachemski (bottom)

free flight



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JS-1c "OG", Oscar Goudriaan from South Africa, taken on Day 1 when 15m and 18m were scrubbed, Benalla 2017 Photo by Łukasz Szczepaniak

+	Doug Scott,	SOSA
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◆ Doug Laurie-Lean (Past GGC President)

♦ Douglas Ogle, GLGC

♦ Selena Phillips-Boyle

+	David	Donaldson.	SAC National	Safety	v Officer
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♦ Elaine Ernewein, London Soaring

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◆ Dan Cook, Flight Training and Safety

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2017/I free flight

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From the Editor Freeflight 2017/1

Welcome to 2017's first edition of Freeflight.

Our first "Letter to the Editors"

Bill Cole and I began working as an editorial team on Freeflight the summer of 2015. It took two of us to fit into Tony Burton's shoes, which had gotten quite large after 34 years on the job. Letters to the editor, in general, are odd things, usually complaints, sometimes about accuracy, and are often the only outlet for bored and lonely people to whine about stuff, and the reason that they are lonely is their friends avoid them because constant whining is hard to listen to. I live in the country, so our weekly tabloid has in its Letters to the Editor column a steady stream of complaints about bad roads, politicians perceived to be crooked, or stupid, or both, and the lineups at the dump on weekends. And Paul Chafe landing in their fields (see pg 23).

For about 20 years, I wrote letters to the editor to Tony, almost always using a fake name, my favourite being "A. Leronne" (say it out loud), partly because I liked it, and partly because Dixon More did not see the deception, found the comments to be inflammatory, and was on a quest to seek and destroy M. Leronne, until Pat Templeton disabused him of that notion. Notably, Chris Gough was encouraging Dixon to pursue the matter.

Since Bill and I began working together, occasionally someone at the club has given some verbal support, but until yesterday, no one had taken pen to paper or fingers to keyboard, to either praise or offer "constructive" criticism, and I am too old to understand Facebook or Twitter, so I don't know, for instance, if Donald Trump is expressing his displeasure, 140 characters at a time. Dr. Dan Johnson, who writes interesting things in the SSA magazine, "Soaring", wrote to me about feedback: "It is encouraging to me as a writer (lack of explicit appreciation is enervating.)" Yes, I, too, had to look up "enervating." So, if you have thoughts about what we are doing, email me or send a Tweet to the SAC Web Editor. Here is what came to us yesterday.

Wow! Just read Freeflight 2016/3. It is a great issue. Full of great fun and informative articles. And great looking as well. That really is a good issue of Freeflight.

THANK YOU From AL Hoar. Cu Nim Club.

Here is my response to him. "Thanks so much, this is our first fan letter. The credit for the layout and photo arrays goes to Bill Cole, the credit for the stories and photos goes to the folks who submitted them. My role, while being necessary, is really a support role, in that I beg and cajole people into sending stories and pics, I try to find stories that fit with others or tie a theme together, and I correct a few typos. Thanks again." So, SAC members, if you want to help us, and be famous, send us a story or a photo, please.

Doug Scott &



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 organization representing Canada at 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.

Freeflight is the official journal of SAC, published quarterly.

Material published in *free flight* is contributed by individuals or clubs for the enjoyment of Canadian soaring enthusiasts. Individuals and clubs are invited to contribute articles, reports, club activities, and photos of soaring interest.

Send e-mail contributions as an attachment in Word or a text file. Text is subject to editing to fit the space available and the quality standards of the magazine. Send photos as unmodifed hi-resolution .jpg or .tif files.

Freeflight 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 communicate with their Zone Director.

Material from *free flight* may be reprinted without prior permission, but SAC requests that both the magazine and the author be given acknowledgement.

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ASSOCIATION CANADIENNE DE VOL À VOILE

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

Vol libre est le journal officiel de l'ACVV publié trimestriellement

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

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

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

Pour un changement d'adresse, communiquez sac@sac.ca **. La revue est disponible gratuitement, en format "pdf" au www.sac.ca.

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10

mars, juin septembre, decembre

Impressions of a First Time Contest Director Al Hoar, Cu Nim

Ed. Note: I was a first-time CD a few years ago in North Battleford, SK., see ff 2010/3 pg. 7, and also Patrick McMahon's story, ff 2016/3, pg. 15

I had fun and experienced a few challenges as a first-time Contest Director for the 2015 Canadian National Soaring Championships, at Olds/Netook Airfield in Alberta. How did I become CD? Just luck. I knew that the organizing committee was looking for a CD, and realizing that I would be having a late start to my soaring season, I offered to be the contest director for the Netook contest. And I was accepted!

The contest was very well organized by John Mulder. He had collected a group of great people and assigned areas of responsibility to each. I was away on holiday for a month and when I got back on May 17th, I joined the group and found that they had taken care of most things already. Every time I thought of something that might have been missed, I was told, "no problem that has been done." Most importantly, weather analysis (Todd), ground crew with vehicles (Brian), tow planes and tow pilots, scoring (Carol), retrieve desk and more (Val), meals and more (Judy); all these details were handled without any input from me. Thank you, John, for your great organizing and all your helpers for their work. The name Contest Director suggests a limited responsibility, and this was entirely correct thanks to John's organization.

Like I said, this contest was a challenge. A challenge for the pilots and a challenge to find opportunities to make each contest day work. The weather did not cooperate. Many days would start off overcast and then rain just as we were ready to launch. One day we launched but no one could climb above launch height. Another day we needed to launch just in front of, and then fly around, thunderstorms. We finally did get four days of competition, by agreeing to use an extra day on Saturday the morning after the final banquet.

That day turned out somewhat like the others. We had to launch quickly at noon, with a thunderstorm threatening. To make the FAI class start possible I extended the start circle to 10 km (by radio). The normal 5km start circle was covered by the storm. Further east the soaring was OK in some areas, dead in others. While contestants were returning to finish, another storm blocked access to Netook from the east. I called a safety finish 20 km circle. This enabled one glider, the CuNim DG 1000 piloted by Phil Stade, to finish. Dave Springford said he went north and south along the east side of the storm, but never did find a way through to the finish circle. Chris Gough was the only club class contestant to finish that day. Thankfully the coordination and information provided to retrieve crews was great, on this day and all the other days. The coordination was done by Val Deschamps, with Carol Mulder also providing a map to every crew.

The contest Jury was Christine Timm and Guy Blood on-site and Roger Hildesheim who agreed to be available remotely. Thanks all for being available. Fortunately, there were no protests so no requirement for these people to settle anything.

The task committee consisted of Todd Benko for weather, two competition pilots, Bruce Friesen and Branko Stojkovic, plus me. This committee makes up the task assignments daily. I found it to be very important to have the input of the competition pilots when figuring out tasks to assign. We did try an open MAT on one marginal day, but no one achieved minimum distance. It turned out that we used Turn Area Tasks for the four days that counted. Another example of how challenging the conditions were.

My overall contest impression was of a super well organized contest, which would have benefited from double the number of entries, and from better weather. It was fun to contribute my small part as the CD and especially good to get to know the organizers and contestants a bit better.

Freedom's Wings Canada at the Gatineau Gliding Club

Doug Laurie-Lean (Past GGC President)

Freedom's Wings Canada (FWC) was introduced to the Gatineau Gliding Club (GGC) in 2004, by its founder, Charles Petersen of York Soaring, and has been in operation here for the past twelve years. The FWC program gives free, inspirational, and therapeutic glider flights to people with physical disabilities, and is funded by the non profit organisation, "Youthflight Canada". FWC at the Gatineau Gliding Club has operated in collaboration with the Ottawa Rehabilitation Centre and the Spinal Cord Injury Ontario organisation, as well with as Carrefor Health Care, in Cornwall. To date, the Gatineau Gliding Club has flown over 400 people with physical disabilities.

The GGC Operated its FWC program initially with a Krosno and later a GROB-103 sailplane, both fitted with hand controls, on loan from York Soaring. In later years, we used the Club Puchacz and Super Blanik two-seater sailplanes without hand controls, as only a few of the disabled passengers had a desire to learn to fly and were more than satisfied with the therapeutic, birds-eye sight-seeing experience from this unique vantage point aloft.

In the four year period (2008 - 2011), the GGC was invited, in collaboration with the Canadian Aviation Museum, to participate with the FWC program in the Canada Day celebrations at Ottawa's Rockliffe airport. On these occasions, we flew M. Cpl Paul Franklin who lost his legs to an IED in Afghanistan, Rebecca Kadloo, a teenage deaf girl with cerebral palsy from Baffin island, Justin Hynes, a wheelchair -bound Pop Singer, and six young veterans of Afghanistan with PTSD, under the Soldier On program, as well as the paraplegic Captain of the Canadian Sledge Hockey team.

In addition to the obvious outreach values of the FWC program, these activities have been covered on various occasions by CBC radio, in English, and by Quebec television in French with obvious marketing value for our sport of gliding. In 2010, CBC Radio-TV ran a "Champions for Change" competition, and the Gatineau Gliding Club, FWC entry, was ranked in the top 50 out of 1370 contestants, in the Health and Wellness category for its Freedom's Wings program.

Lastly, the Gatineau Gliding Club is situated on an ex-WW II airfield, 50 km. east of Ottawa, in Ontario. The Club has approximately 100 members. 70 of which are Flying Members. It has a fully serviced clubhouse, an in-ground large swimming pool, and a fleet of three two-seat gliders and three single-seat sailplanes, as well as large hangar space for a number of sailplanes owned privately by members. �



Doug Laurie-Lean at GGC with Mitch St. Pierre

Hans Lohr 1923 – 2016

Douglas Ogle, GLGC

On April 12, 2016, Hans Lohr passed away at his home in Pickering, Ontario. Canada has lost a dedicated glider pilot, instructor, home-built aircraft constructor and designer.

Hans was born in Domnau, East Prussia (now Domnovo, Kaliningrad Oblast, Russia), June 23, 1923, In 1938, he had his first flight, in a Fokker tri-motor, and was hooked. He lied about his age, pretending to be 16 when in fact he was 15, was accepted into the glider training school and began on Zogling primary gliders, with an open frame, no fuselage nor instruments. They were launched with a bungee cord and had enough endurance to allow the student to practice level flight and basic turns. When students reached a more advanced level, they flew the Grunau Baby, a single seater with full fuselage, higher gliding performance and an instrument panel. The gliders were often damaged in hard landings and the students and instructors had to make the repairs in wood and fabric after the day's flying. This proved useful instruction to Hans in later years. He remembered that the instruments on the glider were actually more valuable than the glider itself. The instrument panel was secured with a bungee cord and in case the student had to jump out with his parachute, he was instructed to try to take the instrument panel with him.

His flying training was now given at Memel and Rossitten, two glider schools located on the Baltic, with high cliffs, and which were reliable locales for ridge soaring. Advanced levels used a two-seater Kranich. A powerful towplane was required and Moranes, taken from France by the Luftwaffe, took the heavy Kranichs up to release height very quickly.

Hans was inducted into the Luftwaffe in 1942, sent to North Africa, and was captured in Tunis on May 7, 1943. He spent two years in Arizona & California, then transferred to a POW camp in Scotland in 1946. In 1947 Hans was released and returned to Germany where he spent six years in Bad Worishofen, Bavaria, working and studying electronics. He emigrated to Canada where his new life began. He was busy as a service manager at Seabreeze Corp. in Toronto, was married and began a family and started to build his own house in Pickering. In addition, Hans obtained his student glider pilot permit in August, 1956 and joined Toronto Soaring where he flew for many years.

Later, Hans joined Central Ontario Soaring Association (COSA), west of Peterborough. I took gliding instruction from him through 1975 and 1976. He took pains to demonstrate the necessity to increase speed while flying in sink and slowing to thermalling speed when encountering lift. Once, we witnessed Hans flying a 2-22

with a passenger and dealing with wind shear, which he encountered on final approach. The glider went down at a steep angle and disappeared behind the treeline. A few seconds later we watched as the glider skimmed over the ground at high speed and lifted over the fence and made a good landing. Hans explained afterwards that having increased airspeed by pushing the nose down, he could take advantage of the kinetic energy to fly fast, close to the ground to take advantage of ground effect and have enough airspeed to clear the obstacle.

(Ed. Note: In Freeflight 2016/3, pg 27, in an interview with Col. Chris Hadfield, it is noted that a study has indicated that use of ground effect does not extend your glide, although it was commonly believed to when this incident took place.)

Later, Hans left instructing to fly his Cherokee II glider. He always had a dream of possessing a powered glider that would be fully self-launching but also capable of good thermalling performance. His first attempt was to build the Mitchell U2 "flying wing" motorglider. The Mitchell was certified in 1984 as IFWA but Hans found its flying characteristics poor and decided to try another homebuilt design. He obtained plans for the Windrose motorglider designed by Maupin. Hans built the aircraft out of wood and fiberglass and installed a Rotax engine. It was certified in 1992 as FJLJ. Flight trials at Lindsay Airport indicated a lack of power and difficulty taking off. Hans tested the thrust put out and decided that a propeller taking better use of the engine and producing more thrust was needed to achieve safe flight. He carved several propellers before he found the right pitch and airfoil to bring out maximum power. The Windrose now had safe takeoff and landing characteristics.

With his growing experience, Hans shared his knowledge, giving talks at the Scarborough/Markham chapter of RAA, covering testing of aircraft projects, carving wooden propellers and fibreglassing techniques. He found time to assist me in the restoration of my LK-10



Hans by his custom Grob self launcher.



Hans touching down in his Grob 1998

which I was restoring to its original dual configuration. I am greatly in debt for his hard work and skills.

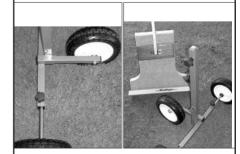
Hans had in mind an even better motorglider, and purchased a wrecked Grob Astir 102, then contacted the Grob company in Germany for plans and informed them of his project. They liked his idea and gave permission to proceed. He created moulds to make a new set of wings, cut off the fuselage behind the wings and rejoined the tail in a pod & boom configuration. A Rotax engine was fitted along with a pusher prop. The result was an extremely clean design with minimum drag. Astir Motorglider L3 was certified in 1997 as FYWZ.

At last Hans achieved his dream of a self-launching glider of high performance and comfort. He did many cross-country flights from Lindsay Airport and made his last flight at the age of eighty on Sept 9, 2003. He put 195 hours on FYWZ.

Ill health prevented Hans from continuing to fly but he turned his energy to aiding injured birds and animals that he found on his farmland and also took in dogs that required a home, no doubt in part because of the veterinary work in which he assisted his father many years before. I will always remember his generosity, his wisdom and his high level of accomplishment. Hans left at his passing his wife Jutta of sixty years, his children Ronald, Giselle, Peter & Theresa and many grandchildren.

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SAC Web Editor's Report 2016

Selena Phillips-Boyle

In February, 2016 I was brought on in an official capacity by the SAC Board to maintain the Soaring Association's public web presence, both through our website and on social media. My primary task is to maintain up-to-date website content, including documents, photos, and news updates. This information maintains connections with our soaring membership and the general public who may be interested to learn more about soaring in Canada. Secondly, I am tasked with increasing our presence on social media. Through social media, we can maintain connections with glider pilots here in Canada and importantly with the international gliding community.

During the past year I have worked to maintain up-to-date information on our website including documents, photos, and news. I also initiated a major project to re-write the static content of the SAC website and have the site translated so that the front face of our organization reflects the bilingual nature of our community. Some further details of my activities include:

- Receiving training on how to work the back end of the website to make updates to articles, documents, photos, and other information. I also opened the email account webeditor@sac.ca to create a professional channel of communication for the position of Web Editor.
- Regularly updating documents on the website, including, but not limited to: Canadian Glider Records, Canadian Glider Fleet, FAI Sporting Code, Badge Application Form, ABC Badge information, 2016 Membership Fees, issues of free flight, and the Cowley Guide.
- Updating the News Section when information was sent to me including Flight Safety Information, OSTIV updates, and the Canadian Team (regarding competition activities and photos from the Ionia Grand Prix and the WGC 2017).
- Updating the landing page photo carousel with photos submitted to me from members (primarily Montréal Soaring Club, York Soaring, and the SOSA Gliding Club).
- Updating the Events section of the website including the Canadian Nationals Competition.
- Updating the Canadian Team section, including bios and websites.
- Updating Director biographies.
- Expanding our presence and interaction on Twitter.

When I took over the account, the Soaring Association of Canada / @canglide followed 29 accounts and had 114 followers. As of 17 January, we were following 324 relevant accounts and have 273 followers. Twitter has been an effective way to disseminate SAC website updates, to solicit photos from gliding clubs, and to easily contact other soaring associations and soaring teams worldwide.

I continue to solicit content of stories and photographs from individual members and clubs to populate the website in a variety of ways:

- If your club has an individual or team responsible for maintaining your own web presence, I invite them to get in touch with me directly so that we can liaise the curation of content.
- If your soaring club has a blog, please connect it to the SAC website's RSS feed.
- If your club is hosting a workshop, fly-in, mid-week flying week, contest, Women In Aviation event, or anything else that you think is relevant for the nationwide SAC community, please send it my way to be added to the Events section of the website.
- If you or your gliding club are on Twitter, you can follow us @canglide and add the #canglide hashtag to your tweet to automatically bring new content into Club Tweets section
- You can contact me directly: webeditor@sac.ca for any other submissions or questions.

In the coming year, I will continue to maintain up-to-date in-formation on our website including documents, news, and photos. In addition, I hope to accomplish the following:

- Complete the project to translate our website and launch www.sac.ca as a fully bilingual website.
- Continue to place new images on our landing page to keep our website looking fresh.
- Continue to work with the free flight team to populate our News section with more information and time-sensitive stories as provided by our membership.
- Make the Events section of our website more robust with events from clubs nationwide so that this section becomes a hub of information about events happening nationwide.
- Continue to use social media to increase our connections with the general public here in Canada, Canadian pilots, and the international soaring community. I plan to continue using Twitter as our main platform for social media to disseminate news, articles, and photos from the Canadian community. I still stand by my suggestion from June 2016 of expanding the Soaring Association's social media platforms to include Instagram as a way to increase our online engagement given that a significant number of our members engage with Instagram.
- Given that the majority of users interact with websites on their handheld devices, I would like to work towards making our website compatible with handheld devices.

In today's digital age, maintaining an active and relevant web presence is paramount to the success of any organization. Through my role as Web Editor, I am responsible for maintaining accurate static content and documents on our website, curating fresh and current content in our News and Blogs section, and expanding our presence on social media. However, the goal of maintaining our web content cannot be accomplished without the active participation of club members, soaring clubs, and our SAC board. I look forward to receiving your submissions. of content! I hope the website will continue to be a place for nationwide exchange of information, ideas, initiatives, and energy.

Curious, Caring, and Connected — for safety

David Donaldson, SAC National Safety Officer

I have this on a post-it note on my desk: "Curious, Caring, Connected". This is from a friend, Deri Latimer, whom I met a couple years ago at a conference when I attended her session on Neuroscience. One key takeaway was these three words. She was talking about how to be more productive, healthy and happy in our work environments, something I think we could all use a little more of. But from a safety perspective we have some great lessons here.

Curious – I remember a flight many years ago as a young pilot in a small club. I was helping push back a 2-33 that had just landed, I was next up and the pilot mentioned the spoilers were "really stiff". Deciding to investigate, I checked the springs that are designed to hold the spoilers closed when closed and hold them open when open and the culprit was indeed a broken spring. After a short discussion we deemed her OK to fly and even with "really stiff" spoilers I had an enjoyable flight.

When you are presented with something out of the norm, be curious, investigate, ask, look into it. One of the best pieces of advice I ever received was "know your airplane". So be curious, read the manual, talk to other pilots, have a look inside. I continue to live by this adage today. Recently I was offered the chance to fly a friend's plane, a type I had not flown before. I gratefully accepted with the caveat, "Not today." I needed some time to investigate and learn about this unfamiliar plane, time for my curiosity to bear fruit. When I eventually took that flight it was both uneventful and delightful.

Caring – Although we all strive to solo and spend the vast majority of our flying hours by ourselves, soaring is a community activity. When the wing runner asks, "Spoilers closed and locked?" they are not just following procedure, they are caring for your wellbeing. We need to do this for each other. Checking in with a pilot that they have done a positive control check, assisting with rigging, all the while paying attention to how our fellow aviators are doing. Have you ever checked in with a fellow pilot, "You doin' okay? You seem a little on edge today." It only takes a moment, but that moment could make all the difference in the world. We care for our colleagues on the field and hopefully we have a community caring for us.

Connected – Life does not happen in a bubble. Yes, I can be curious about what is going on, I can even be caring, but unless I am connected it will have no effect. We need to connect with our peers, with our support networks, with our students. As humans we are social

beings who need feedback. Reach out and connect with your fellow pilots, with your instructors, with your tow pilots. Help them and let them help you.

One of the great joys of flying gliders, for me, is the community. I was at a Transport Canada safety seminar and got chatting with a gentleman who owns a small Cessna stationed at a private farm strip. There are half a dozen airplanes there. We were discussing the differences in power flying and gliding and when I mentioned the community aspect of gliding he sighed, "I can go a whole year and not see anyone. I come out, pre-flight my airplane, go flying, land and put her back in the hangar." I find great joy in sharing my love of soaring with others, connecting with people, regardless of whether they are pilots or visitors.

One of my favourite aviation safety anecdotes is the Super Cub pilot who attempted to take off with no elevator. Fortunately this story ended relatively well with an excursion off the end of the runway and only minor damage. The pilot, however, reported that he had actually done a pre-flight inspection and all was well. This is a great example of the effects of expectancy, we tend to see what we expect to see. He had pre-flighted his airplane hundreds of times and hundreds of times there was a bright yellow elevator securely bolted to his bright yellow airplane. This day there was not, but he saw what he expected.

How could Curious, Caring, and Connected have helped our friend? Well first of all, curious can combat the expectancy bias. If we remain curious we are looking with an expectation of finding the unexpected, rather than walking past without noticing. Caring and connected in this story land with the partner in the plane who removed the elevator for maintenance without letting anyone know. I am not saying he did not care about his airplane or his partner, however he failed to connect with his partner to alert him to the situation. Investigate the unusual, help your fellow pilot, and tell someone. Fly Safe



Wine, Women and Wings! WSPA Soaring Seminar in Varese, Italy

Elaine Ernewein, London Soaring

What is WSPA? A few summers ago, I heard about a seminar for women soaring pilots at York Soaring, in Ontario, close to my home field, the London Soaring Club. I had just started soaring and believed that I did not have the skill level to attend. Encouraged by my husband Larry, and Sue Eaves, a veteran female pilot from our club, I signed up. That seminar introduced me to the world of WSPA - Women Soaring Pilots Association (a Division of the Soaring Society of America). The goal of WSPA is "to encourage women to fly gliders". One way they do this is by offering several annual scholarships totaling \$7,650.00. These scholarships are used for initial training, advanced training, competition and conversion to tow pilot. Each year for the past 39 years, they have organized week-long gliding seminars for their members and associate members. They have a Facebook page, website (www.womensoaring.org) and newsletter, all designed to support their members and share their accomplishments.

The York WSPA Seminar was great! I had never been around so many women pilots at one time. Since getting my power licence in 1984, I have always flown in a man's world. This was a new experience. With flights and lessons geared to various interests and abilities, I found the seminar to be a valuable soaring experience.

Off to Italy! This year when I heard that the 2016 WSPA Seminar was being held in Varese, Italy, I made it a priority. With the many WSPA scholarships available, I applied for and was awarded the Maria Faber Scholarship to advance my soaring skills. The award paid for all of my flying at the seminar and some advanced training when I returned home.

Just as others had encouraged me, I encouraged a club member to join me on my Italian adventure. Cindy Fisher accepted the challenge. She recently returned to gliding and a week of flying was just the ticket. Together we headed off to Italy to learn about ridge soaring. There was an assortment of gliders to fly, an electronic aircraft reservation system, a top-notch flight school with a glider simulator, and an outdoor patio with swimming pool. All located on Lake Varese, presenting a majestic view of Monte Rosa (the second highest mountain in the Alps). Free-WIFI was available throughout the club and on the campgrounds. Our hotel was also located on this lake, minutes from the Aero Club Adèle Orsi. Each night after flying we were able to go for walks by the lake to watch the sun set over the mountains, sip wine and do a bit of hangar flying.

A warm welcome The Italian seminar started on Sunday evening when we were warmly welcomed by city

officials, representatives from the Italian Soaring Association and Aero Club Adèle Orsi (ACAO) club officials. Held at Varese's historic palace, Villa Ponti, the mayor, the president of the chamber of commerce, and members of Italy's soaring society talked about the community and its support of the aero club. We heard stories of how the founders, Adèle and Georgio Orsi, brought their passion for soaring to Varese. Their goal was to create an elite flight training centre.

ACAO then wined and dined us in grand style on the villa's terrace. Sipping great Italian wine and connecting with other members was a great way to start the conference. This event gave us a glimpse of the club's history and helped us focus on the week of flying that lay ahead



Sipping wine on the terrace of a villa among fellow glider pilots, watching the sun set. Does it get any better?

History of Aero Club Adèle Orsi (ACAO)

A young glider pilot named Adèle Orsi (1928-1998) persuaded her father to donate family owned land by Lake Varese to create an airport. In 1962 after she and her husband transformed the land into an airport, the Calcinate del Pesce airfield was opened. Situated 30 minutes from Milan, it is described as one of the most beautiful airports in Europe. It is in the heart of the lake district and is a gateway to the Alps. Adèle's ambition was to invite pilots from all over the world to come and enjoy soaring in "her" mountains. Her and Giorgio's vision is still strong today. The club has 250 members with 80% of Italy's national team coming from ACAO. Adèle herself became a world class pilot and role model for women. She had high standards - to be one of her students was not easy.

Our hostess for the WSPA seminar was Margherita Acquaderni (Margot). Margot was a student and good friend of Adèle Orsi. She not only embraces Adèle's passion and competitive spirit, but she is also an exceptional hostess and promoter of gliding for women. In 2015, Margot was the driving force which brought the 6th Final FAI Sailplane Grand Prix to Varese. This event raised the profile of the glider club in the community and garnered a lot of business and community support.

Margot's own passion to promote gliding was internationally recognized on 13 October 2016 at the FAI Awards Ceremony in Indonesia. She received the Pelagia Majewska Gliding Medal for "her eminent services to the sport of gliding, especially in Italy in the favour of women pilots." If you are ever in the area, you should stop by the club, where I know that you will be warmly welcomed.

Operations, Procedures and Check-outs

We arrived at the airport to see our Canadian flag flying amongst the others from Australia, France, Germany, Israel, Italy, Slovenia, Switzerland and the USA, announcing the nations from where the seminar participants had come. Several German participants brought gliders, some which were high performance two seaters. ACAO made a variety of gliders available for us to fly. There were four ASK21's plus one ASK21-motorglider, two Duo Discus and five tow planes. Several privately owned high performance gliders like an ASH 25, ASG32 and two Arcus were generously offered for flights to WSPA members by their owners. Each day started with morning lectures, followed by training flights and sorties. Training included classroom instruction, simulator instruction and flight instruction. Even though WSPA members came from various parts of the world and had differing skills levels, the lectures seemed to capture the attention of all. Lecturers were accomplished in their fields and answered novice to expert questions with ease. Topics included field operations, towing and release procedure problems, out landing procedures, weather briefings, human factors, aeromedical issues, mountain flying, cross-country flying, wave flying and a behind the scenes tour of the Grand Prix.

The Grand Prix was instrumental in connecting the local businesses to the gliding community. Since this event, they have supported ACAO's other gliding events. For us, this meant small gifts as we arrived each day: gliding books, charts, tools and several large Lindt chocolate bars. It was fun arriving each morning and receiving a gift.

Day 1 was dedicated to operations, procedures and check-outs. Since we would be flying over the Swiss Alps, we were given emergency phone numbers, frequencies of local airports and a warning of the mountain of paperwork and phone calls which would follow if we landed out. Lectures were streamed live on the internet and recorded for Youtube so that all WSPA members could benefit from the local expertise. The two most important things that I remembered that day were always turn away from the mountain, and land close to the shore. This last part became very clear on take-off because initial climb was over the lake.

Let the Flying Begin! As Cindy said, "Taking off was breathtaking, every time." As you roll down the runway and go through the trees, you emerge over the lake facing the majestic snow-covered Monte Rosa. You are surrounded by lakes, cities and mountains. Absolutely magnificent views for us "flatlanders" but with very few spots to land out.

Many participants did not hold a European licence, so

support from the club members was really appreciated. There were 19 club pilots who assisted with instruction, most of them soaring junkies waiting for their next fix. They knew the area very well because when you started to think that you were too low, they would help out and find that sweet spot to lift you back up onto the ridge again. For Cindy and I, our check-out flights were in an ASK-21. We were towed to Campo dei Fiori, a local ridge, where at an earlier time, gliders were launched by bungee to access the lift generated by the surrounding mountains. Anthony (Tony) coached me through the skills needed to harness the lift from the ridge. Back and forth along the ridge, sometimes gaining, sometimes losing height. Most flights started here, as we developed our skills to gain enough height to cross the valley and reach the other mountains.

Although the north winds were not very strong, they did allow us to do ridge soaring on the first two days. Members who brought their own ships took advantage of local expertise for their first flight, but then they were off on their own - hugging the side of the mountains looking in awe as they soared around the next corner into another beautiful valley. One of the founding members and our treasurer Mary Rust says, "The ACAO is by far the most beautiful and well-organized glider airport that I have ever been to during my 35 years as a glider pilot."

On Day 2, one of our featured lecturers was Alberto Sironi, Italian record holder and pilot extraordinaire! Margot introduced him as "the best pilot on the Italian team". He began his mountain flying talk with examples of his flights from the previous day with WSPA members. He used his tracks on the map to describe what to expect given the weaker north wind. He told us that we needed to gain 1,700 meters before we could cross the lake. As he spoke of the flights, he revealed the nuances of the terrain that we were about to traverse.

Later that day, we were off in a Duo Discus to explore the Alps. My pilot, Alfio was very happy to be free of terra firma. He coaxed me over the valley, along the ridges that framed the Lugano airspace and north into the Swiss alps. The mountains were rugged and the valleys and lakes, beautiful. Our flight was 2 hours and 51 minutes of pure satisfaction. As we flew, our instructors were very patient and instilled confidence, especially to less experienced pilots like Cindy and myself. Flying a variety of gliders was exciting! Having local expertise on board reduced the stress level, as we did not need to remember our way back home. Elke, who brought her single seater from Germany said that she "looked for other gliders and tried to follow them." Her strategy was to "simply stay close to the ridge and remember your way out!"

Day 3 Cloud cover and high humidity sent us to the tour bus after our morning lecture. Margot had quickly arranged tours to the Hermitage of Santa Caterina del Sasso on Lake Maggiore's shore and to the expansive Villa Della Porta Bozzolo. Both locations were rich in Italian history and culture. Later that evening, we returned to the classroom to hear Dr. Marco Brusa, a club member and Dr. Victtorio Sanginario (ears, eyes and throat specialist) speak about aeromedical issues that

affect your flying and decision making capabilities.

After my first flight into the mountains, I knew that I needed some help navigating the terrain. The next day, I booked a SIM session with an instructor in the 180 degree simulator. The graphics were very accurate because they used Google maps for their data base. Flying the simulator was amazing! Without the fear of landing out, I could venture away from Campo dei Fiori and practice crossing the lake by myself. To assist this rookie, the SIM operator increased the wind speed which enabled me to cross the lake. All went well until I returned to land with the strong crosswind. As my mother always said, be careful what you wish for. Peter Hartman, an Austrian pilot who is currently No. 15 worldwide, also participated as an instructor. He treated WSPA members to some exceptional flights in the Alps.

Day 4 The lecture was spent discussing cross-country flying and hearing about the planning and organizing required to run a World Championship Grand Prix. We were extremely fortunate to a have an international record holder like Margot as our host. Her lectures on crosscountry flying were filled with anecdotes and strategies. Her female perspective and descriptions about her record flights were very inspiring. Margot's frank discussion about the reality of being a female pilot was greatly appreciated. It was particularly interesting to hear her say that, like many of us, her flying took a backseat while she raised her family. "For 10 years I flew just to maintain my licence" and "shed a few tears" as her friends launched without her. Her story about Pampers was both funny and true for so many of us. We learned that there is life after children, and she has proven it as a world class competitive pilot who holds 38 Italian records and 2 International records. It was truly remarkable the way she handled all activities of the seminar and answered our countless questions.

I flew with Tony again, working on flying more efficiently. That day the ridge lift was quite weak and so we did a combination of ridge soaring and thermalling. Both Cindy and I enjoyed our instructional flights with Tony. He has a great sense of humour and always added a few twists to the end of a flight.

Day 5 of the seminar, was the 1st of July and we celebrated Canada Day. At coffee break, we brought out the maple cookies and gave gifts of maple syrup. That morning Professor Andrea Ferrero talked to us about the emotion and technique of wave flying. In his opinion, "Flying in the ridge, you have fear emotion. Flying in wave gives you euphoric emotion and you have amazing sightseeing." He passed on his knowledge of wave flying which he learned from "the master wave pilot" Jean-Marie Clément.

On this day, because of the weaker winds, we flew flatlander style, using thermals. My last flight was the best! I flew in a brand new ASG 32 Mi which belonged to Margot's husband. The LX 9000 avionics were amazing! They could do anything you wanted except order coffee and doughnuts. Antonio did the self launch and then handed it over to me. What a dream to fly. Once at the proper



altitude Antonio switched off the engine. I was surprised at the time required to cool the engine before it was stowed. Thereafter, everything became quiet and still as we hung in the sky above the mountains. From the comfort of the seats to the lightness in the controls, this was definitely a luxurious flight! First Class, I would say!

The closing dinner was held at the Volo a Vela restaurant which is attached to the club. As I looked over the balcony at the airport, I knew that this was truly an amazing experience. I watched as one our WSPA founding members, Frauke Elber, mingled with her brood and encouraged networking among the next generation of pilots. Because she has lived in several countries and knows a lot of people in the gliding world, she is WSPA's "networking queen". She worked at the University of Waterloo in Ontario for some time. Frauke remembered me from a previous seminar and introduced me to a WSPA member from Germany who has two sons that will be flying for an airline based in Hamilton, Ontario. (Bill delete highlighting) She is 75 years young with over 50 years of flying experience.

Next year will be the 40th Anniversary of WSPA. The seminar committee has chosen Chillowee Airpark in Tennessee, home of Sarah Arnold, America's top female soaring pilot, as their location. Just like the seminars at York Soaring and ACAO, training will accommodate a variety of skill levels, there will be informative lectures and a lot of good times. Cindy and I have it on our calendars and hope to bring a few more Canadians down to Tennessee with us. If you are interested in going, visit the website and join the WSPA organization. It is only \$20 US for a yearly membership and \$10 US for those under 18. You can contact Cindy or Elaine through our club email: info@londonsoaringclub.ca.

Finally I would like to thank Mary Rust for all that she does for WSPA. When our president could not make it, Mary took over and worked hard to make everything happen smoothly. The WSPA seminar is a great soaring experience for both men and women. Join us in Chillowee, Tennessee from July 3 -7, 2017. Come fly for fun! www.womensoaring.org

Elaine Ernewein is a member of the London Soaring Club and began gliding after retiring. While on holiday in New Zealand both she and her husband went wave soaring and soloed at Omarama.

Reflections On an Epic Flight 750 km Triangle, In Ontario

John Firth, KARS

Ed. Note: John's story appears in freeflight 1977/5, pg. 5. I asked John to look back at his own experience and see how he might have done it differently, especially with modern technology. In Freeflight 2016/3, pg. 26, Ronald Smith discusses the nuances of a flight by Andre Pepin, in Ontario, of 721 km. and a triangle size of 554 km.

A lot of time was spent in preseason planning.

A course extending further north but less west (eg. close to North Bay) would have placed the last leg along the escarpment south of the Ottawa river, close to landable terrain; my flying in the last few years has shown Cu persisting late along this line.

For a base airfield today, Kars, Pendleton and Hawkesbury all remain possibles. Despite passing 500 km in 4.7hrs, the last leg of 290 km took 4 hours, as the Cu were few, widely spaced or absent, forcing conservative flying over bad terrain, using every thermal over 2kts to the top near 7000 ft. Going south of the course line was a poor choice, probably made because the folded map did not show how close the Ottawa river valley would have been with reachable landable fields. Contrary to rumour, I did not encounter, see, or use a lake breeze front. I simply weaved along cloud edges on the first leg finding lines of lift

The Kestrel had new ballast bags, double the factory capacity, and 50 lbs. of lead in the O2 holder. It was an exceptional soaring day, not for the strength, but for the readability of the clouds; however, they disappeared after 550 km. At Kars, David Marsden later remarked that it was an unexceptional day with modest lift; but he was used to Alberta thermals! I was simply lucky with the light Easterly which assisted me to TP 1, and the change to a light Northerly which aligned the Cu on leg 2. Landing was at about 6:30. A climb to 7000 ft. at 6:30 would have been possible adding another 80 km or more distance. In a modern 20 meter plus, 50/1 sailplane, given a really good day with 6-7 kt. thermals, takeoff at 9:30, 1000 km. is possible. East of Alberta, only two flights that are on the OLC, both by Adam Zieba, exceeded 750 km and neither was an FAI triangle. Mine was the first in North America.

(Ed. Note: Last summer, I had the pleasure of dining at my home with three men who have flown 750K FAI triangles, John Firth, Joerg Stieber and Chris Gough. I wasn't the main draw – I live near YSA, the location for the Nats, it was a rest day, and my wife had advertised free food. Nonetheless, I

claim the Canadian Record for being the only guy who has achieved this goal. I was inspired to ask John for his comments because of a tribute given to him by my friend Roy Bourgeois, from the Boston area, who has participated in a few of our Nationals. Roy wrote me the following.)

The memorial service for Raouf Ismail who died in 2014, was a gathering of the "dinosaurs" as the average age of the pilots attending was something north of 75 years. Indeed, I was clearly the "rookie" pilot among the group with my mere 42 years of gliding. I did however have the wonderful experience of spending time with John Firth, the great Canadian pilot and regular member of the Canadian World teams of the mid-to-late 70s. John beamed a bit when I shook his hand and told him that he was one of my early gliding heroes, as he was "The first man to ever fly a 750 km. flight in North America". He smiled and said that he assumed that everybody had forgotten all about that.

I certainly had not forgotten what was one of the most remarkable and simply audacious flights ever done in a glider. In 1977 John conceived of a 750 km. attempt on what was then the "new" FAI record triangle distance. Even with the remarkable flights being done out of Texas in the late 60s and 70s and Streidieck's record setting Appalachian ridge flights, nobody (much less some silly bloke in eastern Ontario Canada) had ever attempted the 750 km. FAI triangle. I asked John how he came to even think of it and he said, "well I was getting rather bored and it seemed sort of interesting at the time." Nobody else in his club was even flying cross country!

John declared the flight several times before succeeding. It was done in July of 1977 in his 19m Kestrel over a course that took him from near Ottawa, southwest to Bethany, up to South River and then across 50 miles of the completely unlandable Algonquin Provincial Park and then back on toward his start. Thermal strength was only in the 4-5 kt. range. The last leg of the flight was in the blue. His time on course was over 9 hours. He started at 10:00 am with all the ballast he could get into the Kestrel and landed about 6:30 pm. No computer, no moving map, no GPS - just an electric vario and 2 turnpoint cameras to prove the turns. To put it all into perspective, today, after 39 years and with infinitely better equipment and hugely better weather support, nobody has yet done an FAI 750 km. triangle in New England. In fact - nobody has yet come close to it.

Today, at an age that I didn't dare ask, John still flies a PIK 20E motorglider out of a little airport in Ontario. I want to be like him when I grow up.

(P.S. John is crewing for me at the 2016 Cdn. Nats – I feel I should be crewing for him.)

Be Prepared For A Low Release - (CISTRC 0!)

Shulamit Kuttner, Cu Nim Gliding Club

We had a low release take place during an introductory flight. The glider was a DG-1000, the passenger was in front and the pilot in the back seat. The pilot had briefed the passenger on use of controls, including the location of the release knob. Shortly after take-off, the variometer was warbling loudly and the pilot asked the passenger to "flick the little switch on the stick back." This switch toggles the variometer setting between cruise and climb settings, and is only available in the front. The passenger asked if the pilot had meant the "yellow thing". The pilot misunderstood and heard the word "little", not "yellow" and replied "yes". The passenger then pulled the release. Notably, the pilot reflects that initially there was no significant noise or change in motion to warn that the release had happened, as might have happened with an actual rope break. It took a few seconds before he noticed that the rope was falling away.

The release took place at about 200-250 ft. AGL. Reverting to training, the pilot lowered the nose and elected to land straight ahead into a pre-determined field. Realizing quickly that the glider was too low for this field, the pilot made a 90° turn to the right (to the west, wind from the SW), intending to land in a pasture. Now the gilder appeared too high, so another right turn was made (to the north), with the intention of a downwind landing in a barley field. The pilot had observed this field many times, and knew it to be "very wide and flat", and therefore a good option for a land-out.

Near the dividing line between the pasture and the barley field, the pilot observed an airspeed of 50-52 kts. The approach speed in the DG-1000 is 54 kts. Noting the effect of wind gradient in a downwind situation, the pilot resisted opening spoilers until the main wheel touched the crop. (Ed. Note: See the article about wind shear, Freeflight 2016/3, pg. 32) The landing itself was uneventful. The glider was retrieved and checked over. After a break to regroup, both pilot and passenger were game to try again.

During review of the incident with the pilot, we determined several points for learning.

Be very careful what you tell your passengers. Introductory flights are not instructional flights. If it becomes necessary to ask the passenger to help make a minor adjustment, delay the instruction until there is sufficient altitude. It's easy to misunderstand instructions in a noisy environment, and especially if the passenger is not familiar with aircraft operations.

Airspeed. Airspeed. Airspeed. The pilot credited his primary training that prompted him to keep calm and correctly respond by lowering the nose. An observer on the ground, however, expressed concern that airspeed appeared slow, particularly during the turns. In retrospect, the pilot also agreed that he should have lowered the nose sooner and also established more airspeed before initiating his turns.

The pilot reports that it was very hard to resist the urge to "pull up" on the stick, and that he was surprised by how strong this impulse actually felt. Be alert that proximity to the ground can create a strong (and dangerous) tendency to raise the nose. (Ed. Note: I imagine that this is similar to the urge that is commonly felt to pull back on the stick when entering a spin, close to the ground.) Establish your field before opening spoilers. We go over options before take-off for a reason. Take a walk in the fields close to your runways and observe which ones look suitable for a land-out. Rope breaks and low releases aren't just hypothetical - so be prepared.

Dan Cook's comments: (Chair, Flight Training and Safety) I think the pilot handled the situation well. In launch interruptions we teach to lower the nose and maintain approach speed or accelerate to approach speed. This compensates for wind gradient effects and possible stalls if gusts/shears are present for into wind landings. Once airspeed is managed the pilot can assess options. Turning downwind is an option if there is enough altitude to turn safely. Turning downwind into a tailwind at low altitudes exposes pilots to illusions created by drift that most pilots are not used to. Even the most experienced have fallen victim to the feeling they are too fast, slipping, and over shooting. They have opened air brakes near the stall resulting in a spin scenario.

With respect to discussing the release handle on introductory flights you potentially set yourself up for a human factors incident. Asking the passenger to initiate a release has also resulted in released canopies. Without the Preparatory Ground Instruction prior to an instruction flight it is best not to introduce the release to the uninitiated, particularly at low altitude. In this case the pilot kept calm avoiding a stress reaction and managed the incident and maintained the primary rule "fly the airplane".

David Donaldson's comments: (National Safety Officer) I echo Dan's assessment and congratulate the pilot for handling the emergency well. I would also like to acknowledge the instructors at Cu Nim and the club in general for establishing a good safety culture as evidenced in the comment "we go over options for a reason" - that continual going over is what, in part, enabled this pilot to do what he needed.

The second aspect here is how do we prevent a repeat of this situation, again, happy to see the first item in

the learning points - be careful what you tell your passenger, they do not need to know the full operation of the aircraft. I am a fan of getting them to pull the release and on occasion have asked them to turn on the vario (we usually turn it off on the ground and it is only accessible in the front seat) - but I wait till higher in the flight (at least I think I do) and pay attention to where they are reaching. I have added a "vario on" to my instrument checks before closing the canopy. I also have had that a teaching point to my students. In this, as in my case, the instruments were not properly setup for the flight before take-off. It is an easy thing to fall into with this case some unexpected results. We can never prevent everything and we need to be ready when the chain starts to develop. Happy that this chain was caught and broken in time, leaving the glider and its important cargo intact. Thank you for sharing, we are all a little safer as a result.

Joerg Stieber's comments: (Experienced pilot and instructor at SOSA) We had a very similar incident at SOSA in the 90s (I believe) where a passenger who was briefed on the release, pulled it at about 200 ft. off the ground, just as the tow went over the trees to the north of the field. Fortunately the pilot (Les Waller) managed to turn back and land downwind at the field. Lessons learned:

Brief the passenger before the flight, never to touch anything. If s/he needs to hold on to something, grab the shoulder harness and hold on tight.

If the passenger needs to operate/adjust certain devices which are not critical for the safe conduct of the flight, such as radio volume, vario volume, cruise/climb switch, brief and practice thoroughly before take off.

Close sliding windows before take-off to cut down on the noise level.

If you want the passenger to pull the release - tell him/her when approaching release height and execute only when clearly understood.

Other lessons & good airmanship, for the first 500 ft. of the tow:

Focus 100% on the tow, flying the airplane and options in case of an emergency

Do not adjust, radios, computers, harness, pedals, seats, vents, sliding windows or anything else - you have plenty of time for this above 500 ft.

Do not allow yourself to be distracted by critters in the cockpit (wasps, spiders, mice, even scorpions or snakes) - if you have something in the cockpit you cannot live with, release at 500 ft. and land at the airfield. I had two rope failures in my life. One in Minden in 1990 and one in Nephi in 2014. Both were 200 - 400 ft. AGL with max wing loading and high density altitude. In both cases I landed downwind on the take-off runway. Interesting but not really relevant for the case presented.

(Ed. Note: Joerg added this personal experience, which he considers not relevant, but they indicate to me the need for and the ability to pay attention, think fast, and FLY THE AIRPLANE.)

Mark Voysey's comments: (An experienced instructor at SOSA and has had a real rope break, which he discusses here, and has also been prematurely released by a towpilot on two other occasions.)

Having been released from the tow plane, and experienced a real 220 ft. rope break I would opine that one may or may not hear any audible "bang" as the connection between the planes is lost. I think this depends on the net tension in the rope at the time of disruption. In performing simulated rope breaks if I can pull the release under no tension the student is invariably bamboozled and overwhelmed at the change in behaviour of the glider; students usually respond to the "bang" – not the actual aerodynamics of the glider. This adds important "delay" in responding – with consequent speed loss. The rule of the "sterile cockpit" was the cardinal (important) rule breached here – with (secondary) communication consequences, all happening at a "critical" launch phase.

The Military has determined that breaches of "cardinal safety" rules result is a 7 X odds ratio of "serious" (i.e. lethal) outcomes. Irrespective of the merit of having a total stranger in control of part of the flight controls, especially if the pilot is not an instructor, engaging in this type of dialogue during the sterile cockpit period exposes the flight to these kinds of risks.

Basic (law of primacy) training is what we will all revert to under stress. It's good to practice these patterns on a regular basis. Lower the nose – wait for airspeed- plan. "Ground rush" (inspiring the urge to "pull up on the stick") comes on way before 50 feet of altitude – you can see this in ab initio students even at turn to final (300 ft. or more.)

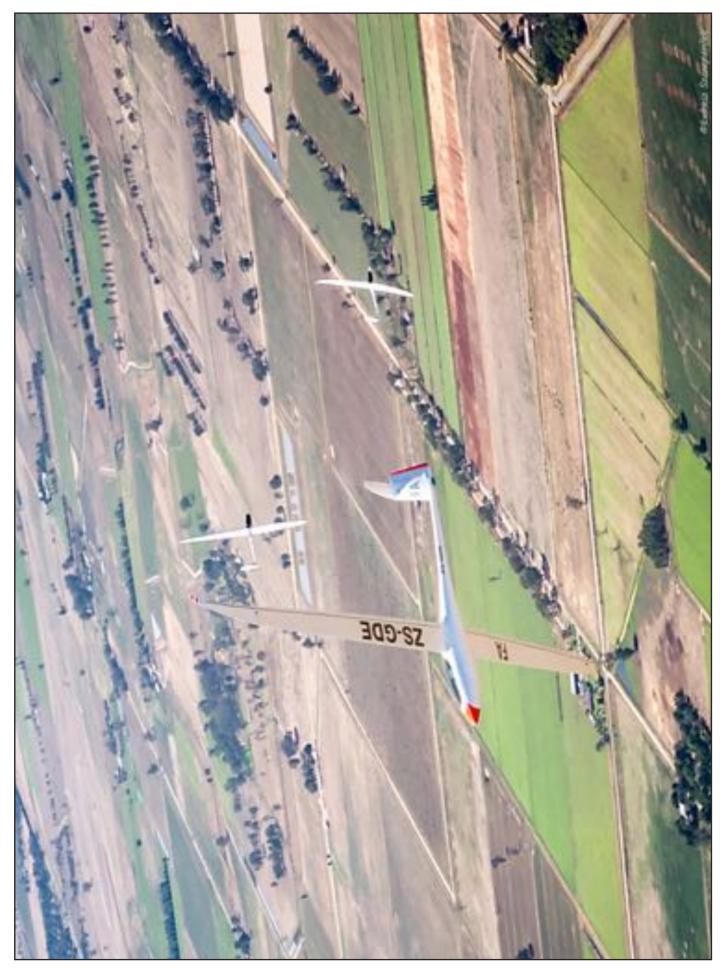
It is a "basic reflex" (of two dimensional life) that must be replaced with the basic reflex of (three dimensional) aviation life – push FORWARD (I'm sure the acrobatics team members and all abnormal attitude recovery trainers would verify this.)

Winch training provides excellent rapid (alternate) landing planning options – you have 30 seconds to "make a successful picture" of a landing at the end of the launch – wherever that may happen to be. (Ed. Note: At SOSA, an aerotow takes several minutes, and an average winch launch is 30 seconds.) Mark adds: Every launch risks a premature termination placing you immediately in an "abbreviated circuit" position.

Whilst it is true that "time slows" when responding to crises like this – it's also true "things happened so fast/instantly" – the difference seems to be the ability of the person to maintain their cognitive composure at the time of this type of stress: training and currency are the resources to build this reserve. A personal or Club "safety culture" allowing "drift" and the "normalization" of suboptimal practices are how we find ourselves having to use such superior piloting skills for preventable incidents.

I wholeheartedly concur with the others' observations.

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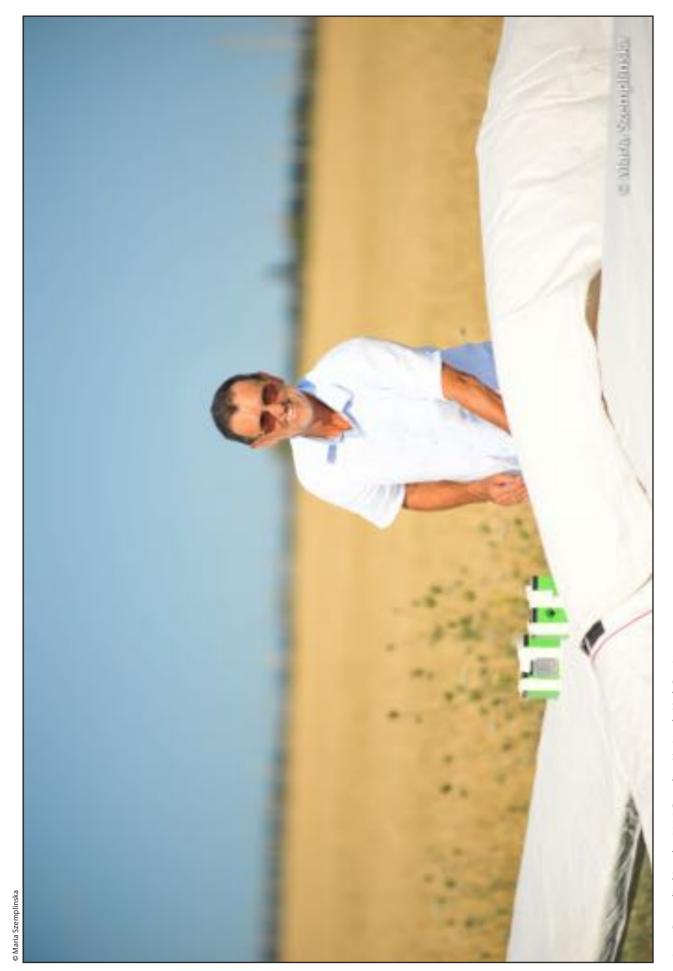


Scenes from WSPA Soaring in Varese, Italy (see article pg 11)





Scenes from Bermuda High (see article pg 21)



Jerzy Szemplinski at the 2016 Canadian Nationals. York Soaring

Three Wins in a Row!

Jerzy Szemplinski, SOSA

The 2016 Soaring Racing season started late for me as I didn't fly the Perry, SC Regional Contest in April and the first contest for me this year was the US 18M Nationals in Bermuda High SC. I arrived a couple of days early to shake the rust off my flying and adjust to a much warmer climate than Ontario at that time of year. Bermuda High is run by Jane and Frank Reid, owners of a private commercial soaring operation. In addition to great hospitality from them, we were surprised by a new improvement, where each glider had access to a world class water ballast system.

Before the first pilots' meeting, the eagle eyes of our CD and current IGC President Eric Mozer spotted me, and he asked me to be a task advisor. My explanation of being from Canada with marginal knowledge of the area was not accepted by him, and we agreed that I would stay as advisor until any conflict of interest may come up, mainly in case of being on top of the score sheet. We had 4 Canadian pilots participating in the contest. Three current Canadian World Team Members, myself, Sergei Morozov, Dave Springford and former team member Nick Bonniere. The U.S. 15 and 18 metre Teams were present in addition to some of the top U.S. pilots.

Day 1 They predicted possibilities of thunderstorms and an area task was set with a small first cylinder, then two larger cylinders to give an opportunity for pilots to avoid the thunderstorm. I didn't play any start roulette and as soon as the gate was open I started and used the first area to the maximum, using the west part of cylinder, then I was heading to the second cylinder. For some pilots it looked like I was returning to the start line but I was trying to avoid the east part of the task area as that sector has a lot of low and wet areas. Going to the third cylinder it was obvious that we would have to go through or around a thunderstorm building on our way home. It looked almost like the thunderstorm in one of the tasks during the 2014 Worlds in Poland. This time I decided to stay high at any cost and go around the storm. Luckily, the north part of the storm was friendly and gave some lift, and with 3 other gliders we were able to go around and finish ahead of large group of pilots who arrived 10 to 40 minutes behind us. Sergei and Nick didn't have such luck and didn't finish the task. Winning the first day has some influence on the strategy for the rest of the contest, as there is a need for preservation of position, and at the same time to increase your lead to have a reserve in case of some poor performance in the later part of the contest.

On Day 2 we had an Assigned Task with a perfect opportunity to practice for the Worlds as an Assigned Task is called not very often in the U.S. and Canada. Predicted high cloud bases didn't materialize and we were in typical Ontario conditions with maximum 4,000 ft. AGL bases. I started in the middle of the group and was able to catch pilots who started 3-5 minutes ahead of me. All was working fine 'till the clouds stopped working and the last turn point looked very marginal, but some clouds recycled and

on the final leg gave us some weak lift and we were able to finish the task. I placed second behind Bill Gawthrop flying JS 1, increasing my lead to 88 points, Sergei finished third for the day, and Dave moved to second place overall.

Day 3 Our CD, Eric Mozer set a 280 km. Assigned Task again. The weather was interesting as we had nice clouds and strong wind before the start but suddenly dry air formed in the west and was destroying the lift markers. After starting I wasn't able to connect with lift and a low save cost me time. In addition, the upwind final leg was very weak and, with a group of gliders just below 2000 FT. AGL, I was trying to get home. I finished ninth for the day, losing some points but kept my overall lead by only 49 points.

Day 4 The forecast was for 3 knots lift to 6,000 ft. with a northwest wind and blue conditions.

Our CD set up an interesting task which looked like an Assigned Task with at first two small

(5 km.) radius cylinders. The third cylinder was larger, so the fast pilots would have some extra room to play. The nominal distance was 288 km., and the minimum time was 3.5 hours. I had hard start as I couldn't climb, in addition I didn't like to be first, as in blue conditions a group of pilots will always beat a single pilot. I was able to start just below 3000 ft. AGL and tried to find better lift on the first leg. To my surprise there was fairly strong lift between 2000 and 3000 AGL and then, 50km from the start I was able to climb to 5000 AGL. Conditions looked promising after the first small cylinder but suddenly all fell apart as wave suppression changed conditions again. I was able to join the leading group of gliders heading to the last turn area, and this part of the task was critical to winning, as I went extra distance into the cylinder to use maximum time and was able to catch up with the gliders which turned earlier. I won the day, increasing my lead to a comfortable 104 points. The weather for the final days of the contest looked very bad and chances to fly looked slim.

Day 5 we gridded our gliders and waited for some magic blue hole which was visible on satellite but not from the ground, and in addition a forest fire west of us made visibility less than 5 miles. While on the grid I was fired by the CD as task advisor which was great news for me as it was a very marginal day and I needed all my concentration. The sniffer reported some lift under overcast and we launched. Surprisingly there was weak lift up to 2 kts. and a blue hole was visible far to the west. The CD asked his task advisors about their opinions, which were discouraging but to our surprise the gate was opened and the race was on. On such days the score sheet could be reversed substantially. After starting, it looked that we would go for landing out, and the question was if we could reach the next airport. But suddenly a blue hole opened on the first leg and we were able to connect with some freshly forming CUs. Pete Alexander (98) was with me and we reached the first area when a small group of gliders passed above us. On the second leg Bob Fletcher joined us and the three of us continued a slow run to the second area with wisps building in front of us. Then hard work upwind on the final leg. Sarah Arnold won the day with perfect fast

flying in a 15M Ventus. I finished fifth for the day, my main competitors didn't do well so my lead increased to 159 points over second place Robin Clark, and it was the last contest day. I won the US 18M Nationals, again, two years in a row.

My Second Win

As the opportunity to fly assigned tasks in North America is very small I decided to take part in the First American Grand Prix in Ionia, Michigan. Ionia is known for very tricky and weak weather, but sometimes it could be good. Another problem was that the Canadian Nationals were starting just 3 days after the GP and flying back-to-back contests is very hard. I need at least a week or two between contest to energize and to switch mindset to a different contest environment. Results from your previous contest don't count in the next one, and a pilot has to think fresh. The GP was a great contest as this is only a one week event, so possibly not too tiring.

With very simple rules, a pilot's objective was to start as soon as the gate is open, to gain height and distance on other competitors and escape the group. Easy to plan but the execution of the plan wasn't so easy. Gear shifting and holding emotions was important. We had a large Canadian contingent. At the last moment Luke Szczepaniak offered his ASW27 to Krzysztof Wiercioch, so with Sergei Morozov, Nick Bonniere, Emmanuel Cadieux and myself we had a very competitive Canadian Team. The GP was very well organized and all worked perfectly including the weather, especially at the beginning of the contest.

Day 1 was The Canadian Day, as three of us took the podium: myself first, Sergei second and Krzysztof third. I hoped that it would stay like that 'till the end of the contest but Sergei lost a lot of time due to a finish penalty on one of the days and Krzysztof's impatience on day 4 forced him to land out. The beauty of a GP is that pilots know how they are performing as they see their location relative to each other. In addition, because they all start at the same time, you are not guessing about timing your start. Finishing when there are no gliders on the airfield confirms winning the day.

Day 2 I made a mistake deviating to a nice puffy cloud before the second TP when the group went directly. The cloud didn't work at all so the group gained on me 4 km. and some altitude, but on the way out from the TP they went to the same cloud and lost some time, meantime I was able to recover lost time, finishing third for the day.

Day 3 The whole group was trying to stay in the air after starting in very weak lift. I gained some extra height over the group and was able escape and finish the task ahead of local pilot Sean Fidler, who took a risk going low ahead of the group to the area where he expected a thermal. It worked for him but he lost some time centering it and he finished over 3 minutes behind me. I was close to not winning on that day as I received start speed penalty of 190 seconds but my time gain on Sean was higher than the penalty and I kept my first place finish.

Day 4 had very marginal lift with cloud base below 3000 ft. AGL, in some places no chances for lift. A short task just over 100km became gear shifting survival, patience and low saves, half a knot was great lift. I won the day just ahead of Jerry Zieba from the U.S., flying a Diana2 and I won the first American Grand Prix. Sergei finished third, so we had 2 Canadians on the podium. Our junior pilot Emanuel Cadieux flying an ASW20 had a hard time to compete with ASG 29s and Ventuses and landed out, but his brave crew Selena Boyle was always ready to pick him up.

The first two overall finishers automatically received invitations to the Final GP in South Africa. The first 3 winners are pilots who have flown a lot of competitions with assigned tasks in their flying careers and they were able to beat younger, very good pilots because of it. Unfortunately, the time between the Final GP and the Worlds in Australia was too close and the cost of two world class contests would be substantial and I decided to give up the GP in South Africa and concentrate on the Worlds.

My Third Win

After the GP finished, we went back to Ontario for the Canadian Nationals at York Soaring. We hoped that the weather would last as the 2016 season was one of the best with high cloud bases and good lift. I decided to fly only one practice day which was one of the fastest days of the contest, and in recent Canadian Nationals history at over 128km/h raw speed on a 390km distance. FAI class had a full contingent of current Canadian World Team members and it was a very tight race between myself, Dave, and Sergei, with Chris Gough working hard to pass us when we were fighting for first place.

We had Texas-like conditions in Ontario with tasks up to 400 km. All 7 tasks were plain area tasks with 20 km cylinders. The Assigned Speed Task was not in the cards for us despite great weather. This is very sad because a pilot may qualify to fly in the Worlds without having an opportunity to compete in Assigned Speed Tasks. During the Worlds, 50% of the tasks are Assigned Speed Tasks.

FAI class had very tight race due to our high speeds. With high speed values it is very easy to lose a lot due to one small mistake because with high speed, one extra turn costs 1km/h. On every day we had very small differences in points. Sometimes between first and third place was just 18 points, and gaining extra points was very hard. After day two I was able to take the lead and keep it till the end of the contest winning ahead of Dave Springford, Sergei Morozov and Chris Gough in fourth place. Thank you York Soaring for negotiating great weather for us and running a great contest.

I finished the 2016 season with three wins in a row, and kept my first place position in the 18 meter US Nationals from 2015. Season 2017 will start early for the Canadian Soaring Team as we will be flying the Worlds in Australia at the beginning of January 2017. In addition, we have the second Pan American Championships, in Argentina in November 2017.

The Plan Comes Together

- 352 km in a SZD 51 Junior

Paul Chafe, SOSA

(Ed Note: You can read about Paul's previous plans falling apart in Freeflight, 2016/1, pg. 8)

You may remember Hannibal Smith of the A-Team saying "I love it when a plan comes together" - usually right before his plan falls completely apart. My plan, has been to wrest from Tom Butts a bottle of Scotch he stole from me last summer. For those unfamiliar with the backstory, when SOSA bought C-GPNN, one of our SZD-51 Juniors, it came with a bottle of Scotch, as a prize for whoever was first to complete a declared 300 kilometre flight. I learned of the prize last summer and decided to win it. I was foolish enough to post my intent on the SOSA message board. The following day was fantastic, a fact I appreciated while looking yearningly skyward as I did some short-notice, urgent, and completely non-flying thing. Meanwhile Tom Butts, inspired by my post jumped into a Junior and flew 336 km claiming the Scotch. He calls this "winning," but I call it air piracy. Fortunately, I was able to guilt him into offering up another bottle of Scotch, if I beat his 336 km flight in a Junior. He calls this being a "sportsman," but I know he really did it just to watch me suffer. And suffer I have. Rather than going out and claiming my diamond goal flight in an LS4 like any sensible pilot, I spent the rest of last season putting Juniors into farm fields all over southern Ontario, once a scant two kilometers short of SOSA. Every time I did, Tom raised another glass of that Scotch and laughed.

But 2016, I swore, would be different. And it was. So next opportunity, I clenched my jaw, strapped on SXN once again, and set out on the Rockton-Flesherton-London soaring triangle. My goal is to launch as early as possible, no later than noon. Even the long days of peri-solstice June are barely long enough to get a Junior around that course. I have to be 100 km out by 2:00 or it just won't work (not that that's stopped me from trying). I launched first ahead of Jerzy, who was my OO, at noon. The thermals were strong, but with a twenty-knot crosswind from the NW they were also messy and I had to keep fighting upwind to avoid getting swept into the Toronto CZ as I went north through the Guelph corridor. I kept up with Jerzy and Luke until north of Guelph, but they vanished as I kept on struggling. My usual strategy is fly-or-die, but as the clock ticked past two I was still south of Luther Lake. In addition there was an ominous bank

of cirrus to the northwest. I could push north until two thirty but... Resignedly I turned for home, trying not to think about how much better an LS4 full of water would do in such conditions. Of course what had taken nigh unto two hours to accomplish going north took just 35 minutes coming south, so with lots of day left I decided to fly the leg to London Soaring to see how far I could get. North of Woodstock the air was blue and so, with both diamond and Scotch foregone for the day, I came back and spent the rest of the day practicing final glides from various local points. For some reason SXN's FLARM didn't download the IGC file to my jump drive, but by rough Google Earth track reconstruction, I covered just about 300km that day. If only it were around the turnpoints! Should I have pushed on? Would the cirrus have moved in and trapped me? I'll never know. At least I didn't land out, but that didn't keep Tom from gloating over another round of my Scotch. I smiled grimly to myself, knowing I now had two routes to victory. If I can't beat him in the air, I'll kill him with liver failure.

The last day of June promised fantastic conditions. I made the necessary arrangements, sped out to the field, hooked up the trailer and unstacked the hangar with Herrie and Jeff. Jeff was doing a five hour attempt, also in a Junior, and agreed to crew should I land out. A solid DI, wash, and new wing tape for SXN, and then out to the flight line - only to find it already gridded. I was seventh in line for takeoff. Seventh! An hour of delay, and cu were already popping south and west. I wouldn't be airborne before one, and that lost hour was crucial. I declared London Soaring-Flesherton-Rockton with Jerzy, and cursed the leisurely pace of those in front of me. Need I add that Tom was one of them? He pretended to wish me luck, but I wasn't fooled, he was really just waiting to savour another of my landouts. Finally Doug Scott fired up the Pawnee, and soon Herrie called in to report 6 knots on the averager. I launched at 1:05, and pulled off in a strong thermal. Five minutes later I hit 5500 and put the nose west and down. My plan was simple. With the wind from the WSW, go hard and fast to London Soaring, then enjoy a tailwind up to Flesherton. The wind was expected to shift to the west so it'll be mostly a crosswind coming back south to Rockton. I find Jeff in a thermal just the other side of Sheffield and climb back up, then back on course again. The sky is alive, and I dolphin and climb, dolphin and climb. Someone passes me overhead (OLC later reveals this to be Eduard in his LS6), and I somehow manage to keep up, getting to 7200 ft and gliding 31 km straight in to London Soaring, dolphining the whole way. It's a great run, but when XCSoar beeps to tell me I've hit the turnpoint it's already 2:05. I've covered 66 kilometers, just 2/3 of the 100 I need by 2 p.m. to guarantee a finish



SZD 51 Junior

It's a great day, the lift might last till 7:00 or even later, but I can't count on that. Still, the sky to the northwest is fantastic, and I'm not going to let Tom drink more Scotch without a fight. Eduard and I part company as I turn NNE to Flesherton and he continues west.

Half an hour later I'm northwest of Stratford. I've covered a hundred kilometres, so three hundred by 5:30 is entirely possible. At the same time, I'm down to 3900 ft and lift is scarce. I find an anemic thermal, try a few turns and abandon it, find another one, abandon it. At least I'm getting the tailwind now, but much more of this and I'll have to give up on the task. There! I get 4 knots on the averager, and up I go. 6200 ft is enough of that, the sky ahead looks great, and that's before I hit one that takes me up from 4500 ft to 8000 ft in 8 minutes flat. To the west, the air mass is blue, and a big blue finger intrudes from Listowel towards Elmira. I have height, I could go straight through, but it's a trivial detour to go to the east, beneath good clouds, and I do that. Glide, dolphin, glide, thermal. Macready is set on 4, and if there's anything better in this world than hitting a thermal at 80 knots and pulling up to centre it perfectly, I'm not sure what it might be. Forty-five degrees of bank at 40 knots, climbing has never been so easy, and as I spiral up I can hear Walter Herten in my head from almost 30 years ago - Guide the nose around the horizon. It happens automatically now. Cloudbase has risen to 8000 ft., I'm making good time, and almost magically Flesherton appears, dead ahead. It's 3:30, and at this pace I'll be home by 5:15 or sooner. I'm claiming my diamond today, it's in the bag.

Except... Except Rockton-London Soaring-Flesherton is 302km. And if I want to rescue my stolen Scotch from Tom, I need a minimum of 336. To get that, I need to pull up the top of my triangle, fly past Flesherton up towards Georgian Bay. I do some rough trigonometry in my head, and figure that 25 kilometres beyond Flesherton will do it, with a solid margin for error. That's 50 extra kilometres. I look at Flesherton. That way lies my FAI recognized diamond badge, guaranteed. I look up towards Owen Sound. That way lies a stupid bottle of Scotch, most certainly not guaranteed. Fifty extra kilometres can't be less than 45 minutes of delay, maybe an hour - and more if something goes wrong. The day might last till 8:00, and SOSA might be in lake effect by 6:00. If I go for the Scotch and fail, I'll lose it, and my diamond, and suffer yet another landout. Tom will raise another toast of triumph, and next week I'll be back in SXN trying again - if the weather cooperates, if work isn't too busy, if I can pick the right day, if I can launch on time. If, if, the only certainty is that the day will be shorter, the window smaller, the chances that much reduced. Flying north might forgo both diamond and Scotch until 2017, or later. I love SXN, but I really do want to get on with the LS4 and 500. Did I mention that I don't even drink Scotch?

(Ed. Note: I do, and I'm the guy who towed you into your "strong thermal." Willie Nelson carried a collapsible cup in his back pocket in case someone offered him a drink, and I'm getting one.)

It's not up for debate. I turn north and push the nose down. Flesherton vanishes under the starboard wing, the vast expanse of Georgian Bay is ahead.

Powerful lift under every cloud, 9.8 on the averager for a couple of glorious circles. Cloudbase is now over 8500 ft, and quite quickly XCSoar registers 25 km past the turnpoint. I turn and race back, get the happy "bing" from XCSoar as I cross Flesherton, just 40 minutes after I chose to extend. The sky is gorgeous. This is going to work! Down to 4700 ft., back up to 8300, and then another 32 kilometer glide, from north of Fergus to the upper edge of Guelph. I climb up to 5500 ft. to get under the Guelph corridor, and head towards highway 401. One more thermal, and I'm home.

One more thermal, but the sky ahead is blue, and the air, which all day has been tossing SXN around like a bath toy in a hurricane sea, is suddenly smooth as glass. There's some big, fat Cu over Cambridge, but possibly in the control zone. Ahead the sky is empty, and I slow down to best L/D. There's a burble over Guelph, and I take a turn, but it's gone. Andy Gough zooms overhead in 44. He's going to make it home, but unless something happens, I am not. I had planned for a light, quartering crosswind on this leg, and I had it all the way to that last thermal, but as I cross 401 it's become a headwind, and picked up considerably. I'm downwind and low, I can see SOSA, but I'm not going to reach it. This is exactly what happened last time, and my heart sinks with the altimeter as the sullen vario drones its sad song of defeat. Too late now to regret that extra 50 km. at Flesherton, I start assessing landout fields. Now, 1500 AGL..., then, 1100AGL... I'm going to land... right... there...

Bump! The wing lifts, the vario awakens, and I roll into a miracle. It's 1 knot up, 2 at best, but I cling to it like a baby koala to its mum. Of all the thermals on this

sensational day, this tiny gift of the sky gods is by far the sweetest. Nineteen turns and 1,000 ft. later SOSA is in reach, and I roll out and head home, just as Jerzy comes scorching over, on full afterburner to judge by his speed. He's also on final glide, but even now I am not. XCSoar is set for an arrival at circuit height plus 400' and I'm still short of that. It doesn't matter, I'm going to make it and that's that. As I come in to SOSA Jeff is circling above me, milking the last of the day for his five hours. I manage to barely nick the finish line, turn into the circuit and land. SXN bumps down at ten to six, and the realization dawns that I've finally won that Scotch. Also incidentally my first diamond. I love it when a plan comes together!

OLC credits me with 352 kilometers at an average speed of 77.5 km/h Also, for a single glorious hour, I'm listed as one of the top 10 glider pilots in the world (OK, 10th.) Then a bunch of U.S. guys start posting results from Nevada and my standing drops, but at the end of the day I'm still in the top 20 (OK, 20th.) However, Tom in his LS-8 (and his evilness) has claimed 8th place with 504 km and 85 km/h, so now I have to get in the LS-4 and beat that.

Thanks to Jeff for crewing, Doug for towing, Jerzy for being official observer, Bill for solid support and wing-running, and most of all Tom, for what I must grudgingly admit is actually some pretty damn fine sportsmanship.

And if anyone feels like taking a Junior 353 kilometers, well, I have a bottle of Scotch for you.

Cheers! - Plan with care, act with courage.



The SAC-ACVV AGM and Seminar will be held March 18 at:

Humber College North Campus Room GH111 205 Humber College Blvd Toronto, ON M9W 5L7

This is just north of Woodbine and south of the Hwy27/Finch intersection. Registration will start at 9:00 a.m.

Since it is a Saturday parking will be free. There is a catered lunch through the college and we will ask for \$20/person to recover the meal cost. Youth members eat free!

There will be at the AGM a TC approved recurrent training program (CARs 401.05) given by David Donaldson, our National Safety Officer.

For more details contact your club or your zone director.

Recall vs Reflection-Based Learning

Dan Cook, Flight Training and Safety

David Donaldson, SAC Safety Officer, noted a New-Zealand University study on recall vs reflection-based learning looked at ways the pilot learns from anecdotal information such as case studies, hangar flying situations, etc. Pilots were more likely to take appropriate action in similar situations if they had reflective learning vs straight memory recall of events. How does this applies to Airmanship?

"By three methods we may learn wisdom: reflection which is noblest; imitation, which is easiest; and by experience, which is bitterest." (Confucius 551 BC).

Transport Canada suggests there are 3 ways to use case studies:

- examine an accident scenario with factors and conclusions identified and discuss.
- Examine a scenario with identified factors and have the students complete the analysis.
- Examine a scenario and have the students identify the factors and complete the analysis.
- Reflection based learning? The process noting
 what happened, why things happened as they
 did, considering alternative actions and outcomes, and attending to associated feelings. Part
 of the brain that deals with feelings vs the part
 that deals with analysis and recall is the dominant
 functioning part of the brain when we are under
 elevated stress, so we often cannot recall well,
 unless the learning was associated with an emotional experience. Yet we do not want to have
 had to experience all poor outcomes to learn
 judgement. Case studies, if used properly can
 save a lot of aggravation.

Canadians use the "SOAR" technique to review accidents in ground school, review case studies identifying factors in the "Situation", examine options, select what the best "Option", and identify "Action(s)" that we might have taken. Then "Repeat" the process.

In the U.S., the Soaring Safety Foundation arm of the SSA uses the FAA "P3 process" (Perceive, Plan, and Perform) for similar analyses of case studies in their glider instructor recertification courses.

Similar to "SOAR", factors are analyzed from case studies by looking at the situation (Perceive) and asking: What just happened? What's happening now?

What's going to happen next? Then examine any factors involving the pilot, aircraft, environment, and external situational factors that may be influencing the outcome.

Lastly, they look at possibilities for a risk management plan by considering Transferring risk, Eliminating risk, Accepting risk or Mitigating the risk (the acronym is TEAM). This helps pilots learn potential outcomes and better airmanship from scenarios that had potential for poor outcomes.

The New Zealand study found a simple way to make the case studies "reflective" learning by asking only four questions:

- 1. What actions were taken briefly?
- Was the action appropriate or did it make it worse?
- 3. What should or would (you) have done better?
- 4. What important lessons were learned for future use?

Which system is better? I don't think this is important. There are merits for using SOAR or P3 in case studies as it helps the brain through the reflective process, so the lessons learned are better retained for future use. The New Zealand process is much simpler to use in the classroom. Did you go through case studies in your ground school? Do you continue to read stories or enter into discussions, after flying, in the clubhouse, and ask yourselves these questions? I would recommend the three methods are all worthwhile and should be done individually and in group discussions in ground school, and more often for recurrent training.

David Donaldson's Comments

The gliding community has been using a similar process. In Canada, we have used the "SOAR" technique to review accidents during ground school. We review case studies by identifying the factors in the "Situation", examine options, select what might be the best "Option", and identify "Action(s)" that we might have taken. When allied in the cockpit, it is important to choose an "Action" and then "Repeat". Doing this as a continuous cycle helps raise situational awareness. I have done all four in the classroom by providing a result of the action to the student and then they run through it with the new scenario, being careful to give them some "everything is all right" scenarios so that they get into the habit of SOAR as opposed to only applying it to emergency situations. Situations as mundane as "you have encountered heavy sink on downwind"

- action: turn base a little early
- **result**: you are now in good height/location for turning final, action: continue on normal circuit"...

that sort of thing. Also,

https://www.youtube.com/watch?v=J9VUIDBeUOQ This is a link to the video in the SAC forum as well as a copy of the actual study.

Dan responds: The question is, "What outcome the instructor is trying to teach," not which is better or trying to do both at the same time. One scenario can serve both purposes, if used again to further develop techniques.

"Reflective learning is an analysis process to get better long term results for judgement from case studies and incident/accident reports. SOAR technique is an applied logical analysis model to develop an effective thought process in an emergency. SOAR can be used with case studies and incident/accident reports to develop this thought process. One is emotional based learning (reflective) and the other is more logic based (SOAR) learning. Both are about airmanship and tools to develop better decision making and not mutually exclusive. Both processes should be taught and used by instructors. SOAR will help with unknown factors in flight and reflective learning will benefit situational factors where 'best course of action' is preferred. For example flying into IMC in level flight would best be served by reflective learning of previous scenarios where an immediate 180 turn back into VFR would be best. In the case of a flight where a loud bang and sudden loss of altitude is detected might better be served by use of SOAR technique where previous

Safety Metrics

Dan Cook, SAC Flight Training and Safety

How do you measure success of your safety program at the club? I subscribe to Australian safety psychologist David Broadbent's "A second on Safety" newsletter and he recently sent an article on this issue for June 2016 titled LITFR, MTIFR, TRIFR and other dodgy digits. Although the article talks about LTIFR or "lost time injury frequency rate" as a poor metric that many business safety programs use, you could draw the same conclusion about incident reporting rate (IRR) as another possibly poor metric depending on how you interpret it. Clubs may be using IRR to measure success of their safety programs incorrectly. I have had many clubs proudly report they have few or no incidents, or they may try to reduce the number of incidents when actually the reporting of more incidents may be a sign of a more open safety culture. However, a reduction in incidents may also be a reflection of how the members feel about the club, that the club leaders do not really care about safety, so why bother to report! Worse, the club might have a

poor safety culture and apathy, but a low incident reporting rate and have been lucky for a long period, only to have a situation result in a fatality or serious accident because a looming hazard has not been addressed or detected. The most risk is when you don't know what your safety culture is because you don't have a way of measuring it or don't care to know!!.

Broadbent suggests how to measure safety culture and I have adapted it slightly for gliding clubs. Organizationally, we have to ask ourselves about the systems we have in place at the club.

- Are we doing enough safety leadership walkaround? Do our CFI, SO, and board members make a habit of regularly getting around the club property and operations looking for safety hazards?
- 2. Do we have prepared start meetings? At the start of the flying season and the start of the flying day do we include discussions of safety issues and hazards including possible mitigation?
- 3. Do we actively encourage our people to report hazards, in addition to accidents? Does our club have a "white card/ yellow card" exercise annually with club members? Is there an incident reporting system of some kind?
- 4. Do we respond quickly to hazards that have been identified by members? Is there feedback to incident reporters that action is being taken? Is there a system of follow-up to ensure planned actions have occurred and have had the desired result? Are all our stakeholders involved (CFI, CTP, SO, maintenance supervisors, facilities manager, etc.)?
- 5. Do we even know what our safety culture looks like? (over 95% of businesses do not.) Have we asked our club members what they think of the club's safety culture?
- 6. Have we developed opportunities for our people to enhance their individual safety leadership competencies?

These six main questions are a much better metric to find out how well our club safety program is doing. It is an indication that our safety culture is not only a concern but if it is actually working at improving our safety. More information on safety can be found on the SAC website documents section. Everything from "Safety Officer Training" to" Dealing with Emergencies." David Broadbent's website also has more information and the article quoted.

http://www.transformationalsafety.com/.

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The Lethbridge Soaring Club Hangar Update

Pavan Kumar, LSC

(Ed. Note: Freeflight 2016/2, pg. 36, had an appeal from LSC for financial help to assist the small club replace a damaged hangar, so that they could properly house a Freedoms Wings glider and a towplane, and offer facilities to visiting pilots. Please note the article elsewhere in this issue that explains the great success of Freedoms Wings at Gatineau. Please help LSC offer the same experience to their local people. Here is part of that previous appeal.)

"We have a crowdfunding attempt with the link www.gofundme.com/shelterforLSC Share this link with everyone you know, especially anyone who knows someone with a disability (of any kind) or who loves aviation. Here's my personal email address, should you have any questions." reese154@hotmail.com

The Lethbridge Soaring Club (LSC) and Alberta Soaring Council (ASC) had a huge week at our Cowley summer camp in August. LSC was able to build our new metal hangar and complete all the arches

of the full 80' length as well as build the west end wall. Next up is to address an east end door of some sort.

We are estimating the total cost of doing this will be near 100k and we could use a lot of support as we still have debts from the previous hangar(s). This new building will benefit anyone interested in coming to Cowley as there is now a rigged 2 seat Grob available for those who need or want checkouts, it is available for rent, and we will soon have other aircraft there. The most impressive benefit is the ASC towplane will be there a large part of the year, now that it is safely protected from strong winds and hail. So aerotow is now available for visitors hunting for great soaring and even wave flights to diamond heights.

I'm not sure the best way to appeal for support from across Canada. We've done the labour and built this great hangar, but the cost is overwhelming for the 11 active members to handle. As of January, 2017, we've had some local support from the Alberta Soaring Council towards the hangar itself and towards the door which required a building inspection and thus a new door frame. We should have that installed in the spring. We've also filled in the gap in the back so it's sealed now on 3 sides and the roof.

Still, any aid or support will go a long way. Thank you







WGC Benalla: CD'S Report



Championship Director Terry Cubley

from-the-cd.aspx

This is a shortened version of a news article found on the World Gliding Contest 2017 web site (link below) http://wqc2017.com/news_add_here/list-of-news/wqc-benalla-

In many ways, the Benalla World Gliding Championships were a big success. We had great support from GFA members with over 70 volunteers spending three weeks to ensure we could put on a good show. Another 30 spent two to five days helping out with a myriad of jobs.

Our focus was to ensure everything we did contributed to the pilots being better able to compete fairly without too many hassles. We all learned that 90% of the pilots were nice people just wanting to have a good time and enjoy some fast competition. A few others were a little tense and, therefore, more prone to complain or react. Our team quickly learned to keep smiling and to work with the pilots, which worked well.

The advice to "keep smiling" and sound positive also applied to how we worked with the weather. It was a terrible weather system that we had to contend with. The task area was still green from a very wet spring, we were constantly subjected to high cloud streaming over from WA, and temperatures were quite low. Not great gliding weather at all.

We had three really good days over the three weeks. Two of those days, occurring in the practice period, saw typical high speeds under cumulus, and the one good day during the competition featured good heights, although blue, with open class completing 750km and the other classes

near 700km.

Most days had the same structure - thermals starting to 3,000ft between 12 and 1pm, with maximum heights expected from 4,000 to 6,000ft. The weather models showed thermals weakening from 6.30pm, although the pilots were regularly coming home at 7.30pm.

Race tactics are quite important if you want to win this event. The scoring system rewards people who don't make mistakes, and does not reward people who try things differently. As a result, pilots were not prepared to start early and risk getting rolled by the gaggle. On many days, the large gaggle waited until long after it made sense to leave and, as a consequence, the gaggle progressed en masse around the course.

Pilots were complaining about the risks in the gaggle, but they all still waited for it and would not go alone. We had two mid air collisions. Two 18m gliders 'touched' (which means 'crashed') on day 2, but both were able to return to an airfield and both flew the next day. The other crash was more dramatic, causing both pilots to parachute. The injuries sustained appeared to result mainly from landing in the parachute with strong winds on the ground.

The task setting was very well done by Weather Lady Jenny Thompson and Task Setter Tobi Geiger. The weather was hard to predict, in particular at what time it would start and finish, but we had to set increasingly larger tasks to try to reduce gaggles before the start. A 30-minute delay in launching could make a task less likely to be achieved, so we had a fine balance between launching into low altitude or changing to task B. On one day, we had to invent Task C, sending a car carrying the new task sheets in a mad rush down the runway in time to meet the delayed launch time.

Tobi's plan was to try and keep the three classes separated by setting tasks into different areas, so we often had one class heading west towards Bendigo, another class heading NW towards Hay, and the third class northeast towards Temora. Sometimes, a short leg along the edge of the hills at the start was needed for one class to give a separation in time, when they would then head north. This worked well and the separation was achieved on all days. The weather was not good enough to go into the hills to the south

except during the practice period and even then, many competitors were reluctant to venture in due to the limited outlanding options available from the heights being achieved.

The last day was a good example of the comp. Launching was delayed for 15m class and heights achieved were under 3,000ft AGL. Gliders were dropping water and milling around in low gaggles. By the time we came to launch 18m class, the gliders were just getting to 3,000ft, and as we had a different launch area we continued to launch 18m class, who also milled around at 3,000ft in low gaggles. Heights slowly improved and the 15m class moved away towards their start line, allowing enough space to launch Open class, who then milled around in low gaggles at 3,500ft, slowly climbing to 4,000ft. It takes 80 minutes to launch the fleet, but we managed to get them into the air in time to make their tasks achievable. It was all a bit low but a good opportunity to race for the final placings.

The tasks were difficult throughout the competition, but the pilots were better. At this level, small errors make a big difference and after seven or eight days of racing, a few pilots had slipped down the ranking due to outlandings or some slow speeds. But there were some familiar faces near to the top.

In Open class, Andy Davis and Michael Sommer, who fought out a close battle in Poland two years ago, were both again in the top three, with Michael in third place only 30 points behind Russel Cheetham in first, with Andy between. On the last day, Michael and his team mate Tassilo Bode started a few minutes after Russell and Andy. As we watched the tracking, they remained close to each other all the way around. It came down to getting a climb on the Warby hills 40km from home - who could get onto glide the fastest. They were all below glide, with half a knot climb rate. Tassilo headed off on final glide to see if he could pick up the height by gliding and therefore give Michael some advice. He didn't, and had to fire up his engine 5km short. Russell achieved glide first and flew home to become world champion. Michael got home only a few seconds later, but not enough to bridge the 30 point gap.

In 18m class, Killian Walbrou (France) was 70 points ahead of a group of two Germans and two British pilots. Killian was the first pilot home just before 6pm and was the new world champion, just ahead of Mario

Keissling and Mike Young.

15m class was also quite dramatic, with Mak Ichikawa in the lead going into the last day, 33 points ahead of Sebastian Kawa and his Polish team mate Lukasz Grabowski. Mak and Matthew Scutter flew together, starting a little earlier than the Polish pilots, and were managing to say ahead quite well until the last turnpoint area. Mak and Matthew went much further into the turnpoint area, probably expecting some good air on the way home, but it was getting late with an expected finish time of around 7pm. Sebastian won the day at 81kph, but meanwhile Mak had got low on the Warbies coming home and arrived 40 minutes late at an average speed of 71kph. Sebastian was once again world champion with Mak Ichikawa in Silver medal position and Lukasz with the Bronze.

So the weather wasn't easy on the pilots or the organisers, but the pilots still had a very tough battle and the skills of the champions really showed through. Open Class had nine tasks, 18m Class had eight tasks and 15m Class had seven tasks. These tasks, with the three practice days, provided enough flying to make it a very viable outcome.

One Canadian's Perspective of the 2017 WGC

Dave Springford, SOSA

The one thing I said before I left home

is that I really didn't want to go through all the time, effort, and money to go to Australia to fly in crappy weather. Once we arrived in Benalla, the locals kept saying "it's never like this". For a couple of nights during the competition the overnight lows were 11 and 13 C, very unusual.

As a result of the abnormally cool weather we did not see the typical Benalla weather and instead of 10,000-12,000 ft. we flew lower. Many days were in the 3000-4000 ft. range and we had a few in the 5000-6000 ft. range and only one day over 10,000. Also, many of the days were "Blue" with no clouds to mark thermals, and this led to large packs of gliders following each other enroute, and into very weak thermals. While this was frustrating, many of those who chose to fly alone could not find lift and landed out.

Despite the weather, I turned in a good performance with 3 top ten finishes during the contest. I also had a couple of ugly days finishing near the bottom of the pack.

I was lucky that Luke had arranged the swap of his glider with David Jansen for the US Grand Prix and thus had David's ASG-29E at no cost for the contest. This reduced my costs significantly as most rentals were \$10,000 for the contest. The hotel where we stayed had a nice BBQ shelter and Virginia and I were able to buy food at the grocery store to cook and eat at the hotel almost every night. This saved us several thousand dollars in restaurant bills throughout the contest.

I was very fortunate to have Marian Rakusan from SOSA volunteer to crew for me in Benalla. Between Virginia and Marian I had a top-notch crew that I could let do their thing. Every morning, Marian watered the glider while I looked at tasks and weather. At the end of the day, Virginia and Marian would clean the plane and put it to bed while I was submitting my flight file. Through their hard work, I was able to concentrate on the flying side of the contest and not have to worry about the daily details - thanks!



Dave Springford in one of SOSA's Pawnees, Bravo Whiskey Yankee

Early Flying at Cu Nim

Wilf Plester, Casey Brown, Cu Nim Gliding Club

It was quite surprising to get a note from **Phil** on the club chat line suggesting a day of gliding Saturday, January 21st. A week earlier the runway had a foot of snow on it and we had been hovering around -15 to -20C for quite some time. In Alberta, we can experience some pretty incredible weather changes due to the Chinook winds. We had two or three days with strong warm winds and suddenly the field was clear. Phil took care of a few drifts, Matt came by the night before and set up an electric heater around the tow plane, and with a bit of shovelling in the morning, the hangar door was opened and the gliders prepped for the day.

Doug flew the towplane and the first take-off was around 11:00. We had the DG 1000

and our K21 available so we were able to log 8 flights with 9 members turning out to fly. Later in the day Steve took over the towing duties. The weather was spectacular and the temperature was around +15. The air was so smooth you could just about do the tow hands free. Almost everyone took a 4000 ft. tow, and there were several attempts to fly 50 km triangles just for the joy of it. There was an inversion about 2000 ft. AGL, and very little lift to be found, but beautiful clear skies in all directions and spectacular views towards the mountains. We even managed to squeeze a flight lesson in. With the short winter days, the last flight landed about 4:45. Everyone who turned out had a great time.

In the evening we had a club pot luck dinner and hosted Bas Seijffert, KLM pilot and current owner of an ASW 28 that the club is in the process of acquiring. Bas is a competitive glider pilot in Europe and he told some stories about memorable competition flights. The conversation drifted to land-outs, with some entertaining stories involving threats of arrest, challenges with farmers, and

other unexpected events. Bas answered questions about the history of his ASW 28, its flight characteristics, and left everyone anticipating its arrival.

It was a very nice relaxed evening at the clubhouse. Bas commented on the atmosphere at the club and how a good club can feel like a family, which was a particularly nice way of summarizing the mood and feeling of the night.

From a surprise opportunity to get some winter flights in, to a club get-together with a fellow glider pilot and trading of stories, it was a fine day to be at Cu Nim. We are looking forward to receiving the ASW 28, and to hosting Bas next time his flights bring him to Calgary, hopefully when we can offer him some glider time. I don't know how many other clubs in Canada get to fly in January, but that is one of the benefits of living in Southern Alberta. It was nice to see quite a few people come out to play. I appreciated the effort put forth to make it happen. Certainly was a surprise considering there was a foot of snow on the field a week ago.



The FAI World Air Games 2015

This is a composite of articles, slightly edited, from various websites, credited at the end, and you can use those links to get further information and also see some great photos and videos. Thanks to Tony Burton for the tip. Please note the comments about "found a course with lift" and "getting the right line" and refer to Ronald Smith, FF 2016/3, pg. 26.

The World Air Games, sanctioned by the Fédération Aéronautique Internationale, is the premier international multi-discipline air sports event, fielding the world's top Air Sports Athletes. The 2015 Games were expected to be the largest ever, with over 1200 athletes participating.

Gliding at the WAG

Modern gliders are the most efficient aircraft in the world. The challenge to the pilot is to exploit that efficiency to the greatest extent possible, and racing is the best way to compare pilot skills. The history of glider racing goes back about 70 years, and in the modern era, gliders have flown around closed circuit courses of hundreds of kilometres - faster than would be possible in a small powered airplane. Traditionally, a glider race involves an allday flight in which the pilots exploit energy available in the atmosphere to the greatest extent possible, but recently new events have been created that emphasize the precise control of the aircraft itself - and take place over much shorter flights. One of these is the "Glider Match Race" which was presented for the first time at the FAI World Air Games in Dubai.

The Rules of Glider Match Racing

In Glider Match Racing, a pair of gliders fly simultaneously over a predefined course of roughly 25 km, and whichever pilot completes the course first, without exceeding a specified speed limit, is the winner, which will be the pilot who can follow the course more accurately, make more precise turns, and control the speed more effectively, all with the goal of being first across the finish line. After a qualifying round where all the pilots are paired against each other once, the winners face each other in a single-elimination finals round. The winner of the gliding event will be declared Winner of the FAI Gliding Match Racing Event and be awarded the Gold Medal.

The six competitors who were invited are some of the most skillful glider pilots in the world. They are the champions of Austria, Chile, Czech Republic, Germany, Italy, and Poland. The Glider Match Race took place at the Skydive Dubai Desert Campus, also known as Margham Airport.

Long-standing rivals Sebastian Kawa from Poland and Austrian Werner Amann battled for gold over the desert sand dunes today (December 9) in the final. Both their Schempp-Hirth Discus 2C gliders were towed up over the dropzone and released from 1,200m side-by-side. They then had to complete a course making best use of their altitude, and flying as efficiently and quickly as possible to be the first across the line. The winner was decided over the best of three flights. Kawa and Amann beat out the four other pilots to end up in the final together.

The conservative strategy to this type of race would be to hold back at the

start, maintaining altitude until later in the race. But both men are famous for their competitive streak and were racing hard from the start, at times with their wings just metres from one another, while flying at speeds of 250km per hour.

Kawa found a course with lift, giving him more height to convert to speed on the final straight, and beat Amann across the line by seconds in the first heat. There was no defensive flying in the second race either, with the pilots scrapping to get the higher line. They jockeyed for position just metres apart. And despite Kawa dropping as low as he could to try to catch up, he followed Amman over the line after a race that seemed to be decided on the final turn.

There was a twist, though. Neither was sure he'd crossed the final turn point. But when the loggers were checked, it showed that Amman had turned too early, meaning only Kawa had made a valid flight. Even though the Polish pilot picked up a time penalty for flying too low on the final straight, he claimed the overall victory as a result. "It was the pressure of racing," said silver medalist Amann, when asked why he'd turned early.

Kawa, famous for his strategic flying, added: "The biggest advantages was getting the right line."

By Andy Pag

Photo: by Sebastian Kawa https://www.crosscountry.aero/wag

Videos:

https://www.youtube.com/watch?v=4aWE146aoNo https://www.crosscountry.aero/wag www.facebook.com/airsports.fai: www.twitter.com/airsports_fai www.flickr.com/airsports_fai/albums



WAG Dubai, 2015. Photo by contest winner Sebastian Kawa

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Magazines

GLIDING AUSTRALIA – the bimonthly journal of the Gliding Federation of Australia. <*www.soaring.org.au>*. International rates for on-line access.

SAILPLANE & GLIDING - the bimonthly journal of the BGA. £41.50/yr airmail, £25.75 surface. <www.gliding.co.uk/sailplaneandgliding/subscriptions.htm>.

SOARING-the monthly journal of the Soaring Society of America. Sub-scriptions, US\$52. Credit cards accepted. Box 2100, Hobbs, NM 88241-2100. < feedback@ssa.org>. (505) 392-1177.

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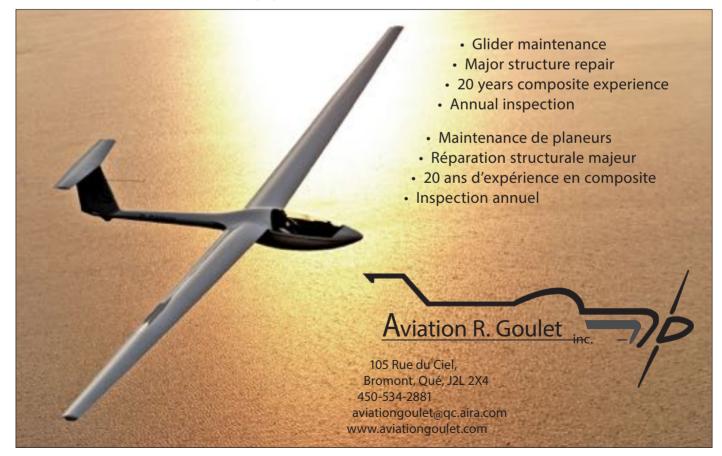
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Windpath North American dealer for SZD-54-2 Perkoz, SZD 51-1 Junior, SZD-59 Acro, and SZD55-1. Also MDM-1 Fox, PW-6, PW-5, and Avionic trailers. Jerzy Szemplinski, <www.windpath.ca>, <info@windpath.ca>, (905) 848-1250.



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Scenes from 2016 Canadian Nationals: Stan Martin **Top**: Before the start. **Bottom** After a smooth landing, just not at YSA



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