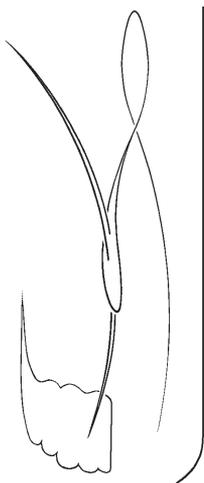


AScent

the journal of the Alberta Soaring Council



Notes from Jason

the ASC President's report

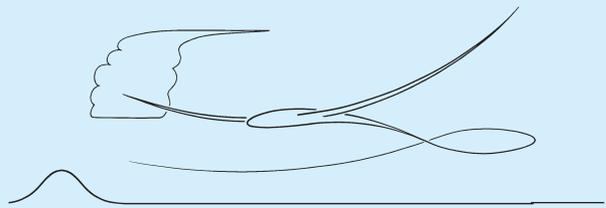
AS WE WIND UP 2020, I am sure many of us in the soaring community will be glad to see this year behind us. It has been challenging on many fronts for our sport and for the Alberta Soaring Council. However, the year hasn't been without some significant successes which we must celebrate. One of the most obvious successes for this year was the fact that we all had the opportunity to get into the gliders and enjoy our sport. At the start of the 2020 gliding season, this was not a guarantee.

The impact that the COVID-19 pandemic had on our clubs and on ASC events in 2020 cannot be overstated. We all had to adjust to the realities of the public health restrictions and requirements which have impacted how we operate at our clubs, the training and familiarization programs that we could offer this year, and the general ability for members to be out at the field and enjoy the sport.

I would like to thank all of the members who came together in May and June to share their "relaunch" protocols and procedures and helped us reduce the risks of transmitting the SARS-CoV2 virus. To my knowledge, we have not had any COVID-19 cases linked to our clubs, which is a testament to our commitment to following all of the public health guidelines. But, I am afraid that we will still be dealing with this virus and the public health implications well into 2021. The lessons we learned this year will prepare us for what is to come!

We were fortunate this year to have both Cowley camps distract us from the weight of the COVID-19 crisis. Both camps were very well attended and we were rewarded with some excellent wave soaring. Cowley proved again that it is Canada's "Diamond" mine, with a number of pilots completing their Diamond altitude badge leg at the fall camp. Of particular note is the flight by Patrick Pelletier and Melanie Paradis which broke an almost six-decade old record with their climb to 31,727 feet! I would like to thank Geoff Minors and Ben Hornett who took the lead in organizing this year's events and all of the members who came out and supported the camps. A particular important thank you also to the Executive and members of the Edmonton Soaring Club who pitched in on short notice and provided a towplane to keep the camps running after the unfortunate ground accident with PCK.

ASCent



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*Ben Hornett and
Derek Jones on tow
over Cu Nim in the
DG-1000*

photo: Ben Hornett



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In response to the instructor shortage at our clubs, we have been working with the SAC Flight Training and Safety Committee (David Donaldson and Dan Cook) to roll out a new model for instructor training. In partial response to the challenge associated with COVID-19, the FTSC group developed a virtual / online program and delivered it nationally using the ZOOM online conferencing tool and the HOWSPACE digital collaboration system. While the rollout of this new method of delivering instructor training has been a bit “bumpy”, we have ten members working towards their Class 3 instructor rating and five others working on an upgrade to a Class 1 or 2 rating. We aim to have all of the instructor training completed over the summer and the candidates ready for their final flight reviews in the spring so they can help out at the clubs. Thank you to all of the local mentors who have spent significant time online with their candidates helping them through all of the PGI and Condor flight demos.

Perhaps the most significant event this year for our association was the notification we received from the Government of Alberta in June that the Alberta Soaring Council was no longer eligible for an operating grant from the Association Development Program. For more than 30 years, our asso-

ciation has been supported as a provincial sport organization through various government programs. This loss of our primary funding source represents a significant risk to the future of our organization as it had the immediate effect of forcing us to suspend our contracts with our Executive Director and our Cowley Director and to suspend many of our program supports that we offer clubs. The Executive is working on a number of proposed funding models for how we might be able to continue to support the critical infrastructure, equipment and programs that we offer. Read Gerald Ince’s ASC Treasurer’s report on page 18. Over the winter we will be working with each club on a revised plan for 2021 and will be seeking other funding sources for our sport. We will update all members of our plans at the 2021 AGM. I personally thank Sheldon Steinke and Geoff Minors for their willingness to continue to serve the Council in a volunteer capacity as we work through this transition.

As we close on 2020, we have the opportunity to look forward to 2021. While there will continue to be significant challenges for our clubs and our organization, I am confident that we can all come together to grow and strengthen soaring in Alberta. Stay safe over the winter... I look forward to seeing you in the skies in the spring! ❖



Mary-Lou Hill

A look east over the Porcupine Hills from runway 21 on 9 Oct. It would have been a fine day except for all those clouds.

Goodbye, Phil

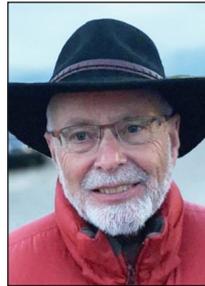
12 April 1950 – 1 September 2020

Harry Koehler, Kerry Stevenson & Tony Burton

PHIL STADE LEFT US ON A MONDAY NIGHT. He was diagnosed with mesothelioma two years ago. The disease now won, and his broad network of friends and loving family has lost. Phil was one of the most energetic spokesmen and statesmen for the Alberta soaring community most of us have known. So much of what Cu Nim has become was a result of his energy and unbounded enthusiasm.

We all owe much of our enjoyment of the Cu Nim facilities and equipment to the efforts of this rather remarkable man. He was either the lead player, or significantly helped in the construction of the clubhouse, the fabric Quonset building, acquiring the box grader/land leveler, arranging financing for the purchase of the ASK-21, DG-1000, ASW-28, was instrumental in securing our original ASK-21 with hand controls to enable paraplegics the opportunity to actually fly a glider by themselves, and a host of other things that we all kind of took for granted, but Phil was on it.

Taking over in 2005 from Tony as Executive Director of ASC and Cowley camps director, he continued to maintain the gliding camps as successful celebrations of Canadian soaring until 2018. He had made so many trips up and down Hwy 22 for odds & ends and forgotten pieces of equipment, that it



should be renamed the “Phil Stade” trail! That Cowley is now home to a gliding club is partly thanks to Phil who worked to help establish the Lethbridge Soaring Club with the ASC winch that he helped coordinate the purchase of. His impact on soaring in Alberta cannot be understated and his contributions stretch from Grande Prairie to Lethbridge, centered obviously at Cu Nim where he genuinely loved to fly from and contribute to club life.

Words that come to mind when thinking of Phil are leadership, friendship, boundless energy, innovation, mentorship, humor, and joy! Most of all joy – he was filled with the joy of soaring flight. He did not pursue badges or records, he just wanted to experience and share this exhilarating experience of gliding with as many people as he could! With family, friends, strangers (who quickly became friends), he was always ready to fly from dawn to dusk, and left many home meals cold as Phil’s wife Beth can surely attest to. He taught students on hundreds of instructional flights that often went longer than the lesson, as he showed them how to chase that next thermal! Beth said he truly enjoyed the flypast on Tuesday, and I think all who participated in it were very honoured to be able to give a token salute to this remarkable man, a benevolent leader, and a giant of Alberta soaring.



Kerry Stevenson

Tuesday morning, 25 August featured the flypast over Phil’s house to honour his life at Cu Nim. Inspired by Doug Robertson and Mike Crowe, they organized it on very short notice when Doug found out that Phil was going to a hospice in Okotoks on Tuesday. Mike and Doug called those who had power planes to fly. Left to right were Larry Kopstein, flying Lyn Michaud’s Scout, Soren Christiansen in “Big Red” (Gullwing Stinson), Harry Koehler in his Cessna 182, Ab Fotheringham in his (and Al Hoar’s) RV-6A, Doug Robertson in his RV-8, and Lyn flying the Pawnee towing the DG-1000 flown by Jos Jonkers.

The flypast – Simon Youens

On the evening of Monday, 24 August, Jos Jonkers, our Chief Tow Pilot, called me and said that Phil was going to be moved from home to a hospice at 9:30 the following morning. He invited me to participate in an impromptu fly-by for Phil prior to his departure. Phil's house is on the south edge of Black Diamond, about five kilometres southwest of Cu Nim. The plan was that Doug Robertson would fly his RV-8 and we would tow the DG-1000 behind our Pawnee.

That was the plan when I went to bed, so I was surprised when I arrived at the hangar next morning and discovered a fleet of seven aircraft! Talking to Doug Robertson, I discovered what happened. Doug is a member of a Facebook group called Diamond Diners, where Beth Stade had sent a message advising them of Phil's move to the hospice. Doug called Lyn Michaud who agreed that a flypast was a good idea. Subsequently, Mike Crowe suggested that all the club members who owned powered aircraft should be invited. They all enthusiastically agreed and so on the Tuesday morning, between 7am and 8am, an RV-8, a Cessna 182, an RV-6A and a Gullwing Stinson arrived to join the resident Scout, Pawnee and DG-1000. Several of the pilots had to get up very early in order to drive to Springbank and High River airfields, where their aircraft were based.

The fleet took off in trail at one-minute intervals, led by Doug and Mike in the RV-8, followed by Ab Fotheringham and Kerry Stevenson in the RV-6A, Harry Koehler and Jim Nelson (a photographer) in the 182, Soren and Beth Christiansen, and Wilf Plester in the Stinson Gullwing, Larry

Kopstein in the Scout and bringing up the rear, Lyn in the Pawnee, towing Jos and me in the DG-1000.

We headed east, climbing to 1000 feet and then turned south, near the Big Rock, before turning west towards Phil's house. There were lots of radio calls to confirm position and maintain separation and a call as each aircraft crossed 128th Street, three-quarters of a mile east of Phil's. After passing over the field south of the house, Doug led the powered aircraft into a left-hand racetrack orbit and passed the house again, and then repeated the procedure. From the ground observer's point of view, it must have looked like a fifteen-minute stream of fifteen aircraft. There must have been some puzzled Black Diamond residents.

After the first pass with the Pawnee and DG-1000, Lyn climbed to 2000 where Jos and I released and flew a few turns to the south of Phil's house, before returning to Cu Nim.

We heard that Phil saw and appreciated the fly-by. There were quite a few people watching in front of Phil's house and apparently one of them said, while observing the parade of powered aircraft, that it would have been nice if there was a glider. At that point, the Pawnee and the DG-1000 arrived. Good timing!

After landing, we organized the aircraft for group photos and discussed the morning's events. We recognized it was a sad occasion but at the same time, were pleased that we had been able to participate and put on this show for Phil, who had been such an integral part of the club for many years. Sadly, Phil died one week later. ❖



The Canadian multi-place altitude records

Melanie Paradis & Patrick Pelletier

Melanie's story

ARRIVING AT THE FALL COWLEY CAMP on Sunday evening, I was excited and nervous as this would be my first opportunity to experience mountain wave. I soon heard the sad news that a wing stand had given out while Patrick was rigging, rendering his glider unserviceable. I offered my sympathy and disbelief and told him that he would have to get in our two-seater from Edmonton so he could mentor the uninitiated.

Monday, I was able to line up a wave checkride with Gary Hill. Gary and I were able to get to the primary wave in the ESC Perkoz. It was a great flight with a taste of everything the wave had to offer. Rotor, wave, cloud formations, tracking vs heading, fighting to stay out of controlled airspace and most amazingly, how quiet and smooth it was in the wave and how effortless the climb was. If you weren't paying attention, you would quickly bust through the 12,500 ft base of Victor 300 airway before you could get clear of it north of Centre Peak. I was amazed at how strong the upper winds were and how fast we could descend when we were on the down side of the wave.

That night, my family had our truck camper parked at the end of Runway 21 beside all the tied-down gliders, and endured the windiest overnight camping we had ever experienced. Finding it hard to get to sleep, my husband Tyler and I found ourselves wandering around in the dark checking on the gliders, and righted a blown over wing stand on the Perkoz. Back in bed afterwards, with the camper rocking in 80 km/hour winds, my mind swirled thinking about the day's events, and the excitement of tomorrow's wave conditions to come.

The next morning, Peanut arrived. He said he thought it was going to be a great wave day and wanted to know if I would like to go break the two-seat altitude record. Before I knew it, I was saying "Okay!", and sprung into action untying and DI'ing the Perkoz. Positives and release checks completed, we pulled the glider over to fill the oxygen tank to max capacity, while Tyler brought the towplane over to the flight line. My knowledge of oxygen equipment with my hospital respiratory therapist background left me feeling comfortable that the regulator and tanks were much the same, and the use of nasal cannulas and mask use, and partial pressures of O₂ at altitude were all second nature. Since Patrick and I would be relying on our oxygen system to keep us functioning for our flight, a clear plan and team work would need to be followed. We discussed the plan

and I practised switching over from nasal cannula to mask and switching over the *Mountain High* O₂ connections, which sounds simple enough, but at altitude would need to be done in a timely and practised manner to avoid hypoxia. Patrick then briefed me what would happen should one of us feel the effects of hypoxia. As talking would be hindered with the masks, we will check in with one another every 1000 feet with a thumbs up. Should either of us feel any effects of hypoxia, either of us were to open the spoilers and descend as seconds would matter to get down to a safer altitude.

While Patrick and a small crew pushed the glider out to the flight line, I went back to the camper to get my winter gear on and have a bite to eat. A quick mental check-in with myself was completed on my short walk to the camper to ensure "I AM SAFE" to fly. When I arrived at the camper, my three boys were about to start their on-line school day, and were using my cell phone as a wifi connection to log onto their class meets. I told them, "Sorry boys, you're going to miss school this morning, as I would like to document our attempt to break a Canadian altitude record." Amazement to both the statement of missing school *and* to their mom going off to break a Canadian record ensued. With their words of encouragement ringing in my ears, off I went to get into my parachute, set up *XCSoar*, and get strapped in to the glider.

Our ESC fleet manager Ray was close by and since I had only flown the Perkoz twice this season (I had been jumping between six other glider types between Cu Nim and ESC), my familiarity with how to switch radio frequencies, check battery life, and switch the onboard batteries were minimal as every aircraft seems to be slightly different. Two of the three on-board batteries were at minimal charge so I requested a hand held for the backseat as a backup and Patrick was happy to provide his.

While Patrick and I were busily prepping for our flight, Tyler Paradis, who is a "Calgary Enroute" IFR Controller (encompassing Cowley airspace), our towpilot for this flight, and who also happens to be my husband, was coordinating with Edmonton ACC to open a block extension above FL280 in an hour's time. A big thank you to Todd Trischuk, the Edmonton ACC Shift Manager at the time, who organized approval for this request.

The time came where we were all strapped in, crew plan in place and rehearsed, and discussion of tasks divided up. I was to fly take-off, aerotow, initial wave climb to 20,000



feet, all air to ground communications and ATC clearance coordination through Cowley ground, descent from the wave, return to the airfield, circuit and landing. Patrick's tasks were pre-flight game plan coordinator and briefer, high altitude wave climb and navigation, crew safety coordinator, in-flight crew on-board communications and crew physiological monitor.

Takeoff was uneventful and initial climb out was great and we quickly rose to 5000, which is where we stayed for quite some time on our journey over to the Rocks. The tow was rough at points once we were into the foothills. Full control deflections were definitely needed at times, but from stories I had heard about passing through the rotor it wasn't too bad. As we were approaching where we thought the primary wave should be, Patrick asked me to call Tyler to tell him to turn west, but before I could make the call, Tyler was already turning where we wanted him to due to his experience attaining his Diamond climb the day before on his wave flight, or possibly from his sixth sense from decades of avoiding the wrath of his wife. Regardless of the reason, our VSI started to read 10 knots up at which point we released. Our typical right turn off tow was quickly shortened and we turned back into the wave with the tow-plane in sight. Amazingly, the VSI and altimeter quickly marched up. We worked our way north to get past Centre Peak before we reached 12,500 feet to clear Victor 300 airway and continued our strong steady climb. At 18,000 we switched over from cannulas to masks.

Time had no meaning as I was lost in the wonder of the flight. As each 1000 feet ticked by, our goal seemed possible. Through 22,000 feet, it became obvious to Patrick that the wave would likely reach above 30,000 feet and he asked that I call Cowley Ground to obtain clearance to FL350. (The initial clearance was to FL320.) Patrick reminded me to make sure my muscles were relaxed and to wiggle my toes, and mentioned that shivering can lead to hypoxia. I flashed back to bedside experiences with cardiac patients shivering and watching their oxygen saturation plummet. I focused on keeping my muscles relaxed and my legs warm by resting my arms over my chilly legs, with my down gloves resting on my thighs. I was grateful for my winter boots, layered pants, jacket, hat, gloves and wool socks. Passing through FL280, Patrick told me to look up and I was shocked to see an Airbus 330 passing overhead. Its contrails remained as we continued to climb and we were subsequently given a clearance to FL350. My move-

ments now were very deliberate so as not to consume more O₂ than was being delivered to my body. The small window vent on the Perkoz kept popping open and I weighed the risk of letting in the -43C air and risk shivering, or moving my arm up to close it consuming too much oxygen through my movement. Passing through FL300 I focused on my breathing, maintaining a normal respiratory rate of 10-12 breaths/minute by counting 6-8 seconds between each breath and tried to keep a normal tidal volume to each breath as I did not want to decrease my CO₂ levels, as I know in my practice as a perfusionist that decreased CO₂ can lead to cerebral vasoconstriction.



I really wanted to look around and take a picture, but instead I tried my best to imitate a rag doll with limp muscles. As we reached FL320, I tried not to get excited as I did not want my heart rate to increase as my cardiac output would increase along with my oxygen demand, which could push me over the edge to hypoxemia. Within seconds of being at FL320, Patrick opened the spoilers, increased speed, and did a rapid descent using the rapidly descending air on the downward side of the wave to get down to 28,000 feet within a minute. I was very grateful for the extremely effective air-brakes on the Perkoz, Patrick's

15 years of wave experience, his military training which included hypoxia training and high-g CF18 maneuvers. These all contributed to his immediate escape planning when he recognized his own hypoxia through the beginning of tingling fingers after he took a picture at FL320.

At 28,000 feet we discussed if we should continue to climb and we decided that since other pilots were waiting for the Perkoz, we should head back. Control was handed back over to me, at which point I inwardly laughed at the seemingly ludicrousness of our altitude. How do I get down from 28,000 feet?! With a fighter pilot in the back seat to guide me through it, no problem! Spoilers, speed and staying in the down-going side of the wave brought us down quickly. Once below the base of Victor 300, we decided to head west and pop over a large bank of cloud instead of going under it, so we could take advantage of the lift on the other side of it, instead of going under it into the rotor. I had never descended toward a cloud formation from above before, and our shadow on the impressive cloud bank could be seen with a concentric rainbow around it. Beautiful!

We followed the edge of the cloud southbound and came around the end of it and started heading north to the field

at which point I closed the spoilers and fought upwind. We arrived back at the field with a few thousand feet to spare. I popped the spoilers to descend to circuit altitude, but Patrick said, “Why waste the height when we are paying for it,” and with a detectable grin in his voice took control and put a show on for me. It was amazing to see such precise control, and his ease at the controls from years of military training shining through. At circuit altitude I took control and landed back at the field into a very stiff headwind, which I was thankful for as it was these amazing winds that afforded us the wave from the Livingstone Range to achieve our record setting goal.

What an amazing feat accomplished with such a simple question – “Wanna break a record?”

... and Patrick

Melanie’s account of our flight sums up our achievement quite well, and after reading it I feel that all I can offer is my recollection of events and thoughts that led to us breaking a long-standing altitude record. I must point out that after the fact, a seemingly unconnected event led to this record attempt. Upon arrival in Cowley, my glider became unusable for the duration of the camp and I essentially started looking for someone to fly with after I was done kicking rocks and feeling bad about not being able to fly my own machine on what I consider to be the highlight of the year. Yes... I’m addicted to high-altitude flight! On to the story...

At the fall Cowley camps, I got in the habit of getting up well before sunrise to have a look at the weather forecasts, read the NOTAMs and to take a peek outside my hotel room door to look at the weather conditions in the Pincher Creek area and more specifically, looking for signs of rotor or lenticular formations towards the Cowley airfield. It only took a second to tell that a strong wave was occurring. The sight of well-formed lenticular clouds and the associated high winds at Pincher Creek told me that it was time to pack up my high altitude gear, head for the field and find someone who is awake and willing to go flying.

When I arrived at the field shortly after sunrise, only three people were up and about. Melanie and Tyler Paradis and me. The initial conversation went like this:

Me: We should be flying right now!

Tyler: If you want to go, take the Perkoz and I’ll tow you.

Me: Melanie, wanna break the two-seat altitude record?

Melanie: Okay!

And that got the ball rolling. We promptly got to work getting the Perkoz ready and topping up the oxygen. Although this may seem like an impromptu “let’s go flying” type of thing to the reader’s eyes, a lot of thoughts were going through my head as we were preparing to go break a record and were knowingly about to put ourselves at sig-

nificant physiological risk flying above 25,000 feet. I did feel a certain burden of responsibility upon deciding to break a record and putting someone else at risk, so I had some thinking ahead of me and only about an hour to do it.

As we were preparing the glider and equipment prior to launch, I was building a list of essential briefing items in my mind so that the risks we were about to take were mitigated as much as possible. The main challenge to breaking a two-seat record is the fact that there are two crew members on board and how to achieve and maintain safety throughout the flight. This may seem trivial in low altitude flight, however when the oxygen masks go on, the number one challenge is communication between the two of us. The number two challenge is the physiological monitoring of the crew. Third is air-to-ground communications and fourth is the coordination and sharing of tasks between the crew members. Below is a list of elements that I considered essential to a crew briefing to achieve as safe a flight as possible during our record attempt.

- **Crew Communication:** Our pre-flight briefing consisted of how we were going to communicate with each other once the masks go on. Around 16,000 feet and up to 25,000 feet we briefed that we could momentarily lift our masks to say a few words. Above 25,000 feet, we briefed that no more words would be used and only a thumbs up to the other crew member every time the altimeter climbs through another thousand. In the event that one of us feels unwell either through hypoxia or any other reason, the affected crew member only had to pull the spoiler handle open fully and this was the signal to start an emergency descent and turn towards the dump side of the wave to maximize our descent rate.

- **Physiological monitoring:** I am fortunate to have been trained to recognize my personal hypoxia symptoms through my Air Force high-altitude chamber training and I am confident I can recognize my own in time to carry out emergency actions. How do I monitor someone who has never experienced their own personal symptoms and has only had brief exposure to the wave once before? The answer was the combination of a few things:

- 1 Establish that if you are not feeling *exactly* the way you feel right now standing on the ground, you are likely hypoxic.
- 2 Establish a prompt thumbs-up given to me every time the altimeter crosses another thousand once above 25,000 feet.
- 3 This one came up in flight as a welcome annoyance: The front cockpit vent kept popping open every 30 seconds, which allowed me to monitor Mel’s reaction and watching her coordination while she closed the vent repeatedly. As an added precaution, our pre-flight briefing included the use of our oxygen settings at altitude and selecting the highest manual setting upon crossing above 28,000 feet (R/M on the *Mountain High*).
- 4 And finally to further mitigate the risk, we briefed that

we should avoid unnecessary movement above 28,000 feet since muscle use consumes O₂.

- **Air-to-ground communication:** Although this was a minor challenge, the fact that only the front seat had transmit capability required some coordination between the two of us. I carried my own handheld just in case. We did however talk about what clearance I wanted from ATC to both Mel and Tyler as he would act as the ground liaison between us and Edmonton ACC.

- **Coordination and task sharing:** A two-seat record requires each crew member to act as a team. We established who was going to do what before getting airborne. Mel would do the take-off, air tow through the rotor, release and carry out the initial wave climb below 20,000 feet, all communications, and the descent back down from high-altitude for landing. My tasks were wave climb above 20,000 and navigation at high altitude, physiological monitoring of the crew and a few other tasks.

Aside from those “big picture” tasks were some more specific items that needed discussion like “how and when are we going to switch from cannulas to masks?” The answer for that one, as an example, was low enough for everyone to do it while able to fix a problem, and we established the order of front seat first while the other is flying. Confirm oxygen flow in the mask, then relinquish control, and repeat for the back seat. This item actually proved to work quite well. When my turn came to don the mask, I had made the switch but could not establish oxygen flow which required me to retrace all the oxygen tubing until the fault was found.

The above elements I listed are not a complete list of considerations I made prior to us attempting to break this record. These elements are there to highlight that if you are going to attempt a task using a glider with two crew members, you will need to figure out what will maximize crew efficiency in a challenging environment and ensure everyone’s safety.

Without re-telling our story, I wish to highlight that Mel’s performance has been outstanding and performed as an ideal crew member throughout the entire experience. As a professional military aviator, I seldom get the chance to fly with civilian pilots in challenging environments. Her actions, teamwork and adherence to the plan we established were instrumental in us achieving success and her performance was equivalent to what is expected of a military aviator. She would be my first pick should the opportunity to break another two-seat record present itself again. ❖



Top of the climb! A view from a height that is higher than Mount Everest.



Patrick and Melanie, shortly after returning from their absolute altitude and gain of height record flight. The calibrated results from this flight is a height gain of 7275m (23,868 ft) and an absolute height of 9831m (32,254 ft).

The previous territorial record (ie within Canada) gain of height was set in 1961 at Cowley at 7102m (23,300 ft) with absolute altitude record of 9083m (29,800 ft).

Span is for wimps

Chris Davidson, from *Sailplane & Gliding*

THERE'S MUCH TRUTH spoken these days about many things: wide screen smart TV, or what is an absolute must on a modern computer. We are told that without these essentials, civilized life can hardly continue. The normal way to discover such truths is to pop into GOOGLE and spend the next few days getting to know the difference between your '500 Hz refresh rate' and your '400 memory fast-text'. There is a downside to this process. Whereas before checking GOOGLE you would have happily walked out of the store with a £400 model, you now realize that, at a bare minimum, any new purchase will cost £900 and even that is skimping.

To some extent gliding has always been isolated from this phenomenon. I don't suppose many people read *Sailplane & Gliding* and then order an ASG-32 from your local dealer. Most people who are in the market for a glider tend to have spent at least a few winters having the glamour and glossy pictures being frozen out of them. They know that you can have as much fun in a Ka6 as in a Ventus and, after all, fun is what it is all about, isn't it? Yes, what a sensible, knowledgeable lot we are. Not to be swayed by marketing or the desire for toys and gizmos that are anything less than essential.

My last statement is, of course, utter piffle. Ever since the Wright Brothers went down to the *Old Duck & Crumpet* and discussed a new idea for wingtips over a couple of beers, 'Gliding Man' has sought to eke every last percentage point of performance out of his pride and joy, and when eking just isn't good enough, then a quick phone call and a new bundle of carbon fibre and joy can be yours for a few zeros. TINSFOS (*There Is No Substitute FOR Span*) rules, it always has done, it is the only way to fly. So, many trees have been felled to support the writing of it, many beers have been drunk to support the talking of it, and the entire German economy has flourished to support the making of it. Span must be the king. What other guiding principle can there be? Well folks, the time to rise up and reply has come, TINSFOS is dead, long live SIFOW.

Span Is FOR Wimps There are a number of avenues by which I can advance my case. I will start with the basics: why do you glide? For the purposes of brevity, I will dispense with the 'inner freedom', 'fly like a bird' and 'just for fun' brigade, as clearly all their ambitions can be satisfied with any glider, regardless of size – TINSFOS has no hold over these fine pilots. The, "I fly for fun therefore I need a big glider" school of thought doesn't offer a leg to stand on. Please read on and redefine your argument or, to paraphrase a popular football chant, "you are wrong, and you know you are". If, however, you are in the subset that says, "I fly for fun,

and I can afford a big glider, so tough luck", then I have no argument – skip the rest and go to the adverts; I doff my cap to you. So, where do we look to find candidates from the TINSFOS set ripe for the plucking? They have to be among the "I live to fly cross-country" clique, an upwardly mobile bunch if ever there was one. Are they the real "push myself to the edge and beyond, press on regardless" type, or are they all GPS and turbulator tape? The game goes like this:

White I worship at the alter of TINSFOS because I live to fly cross-country.

Black You can fly cross-country in any glider ...

White Ah yes, but I want to fly further and faster.

Black Why? (excellent move this: White now on back foot). The alternative response is "Further and faster than what?", then follow with the question "Why?"

White I want the thrill and challenge of flying further.

Black But, more of a thrill and challenge can be had doing the same in a small span glider.

White Ah yes, but I want to keep up in the pecking order of our club by flying the bigger tasks.

Black Why not go for the real kudos – fly the same tasks in a smaller glider?

White You don't have the good glide angle in a small span ship to make the best of a good day.

Black Try flying in lift then. 10% more skill on your part could mean 20% more time in rising air, and a 30% improvement on your distances.

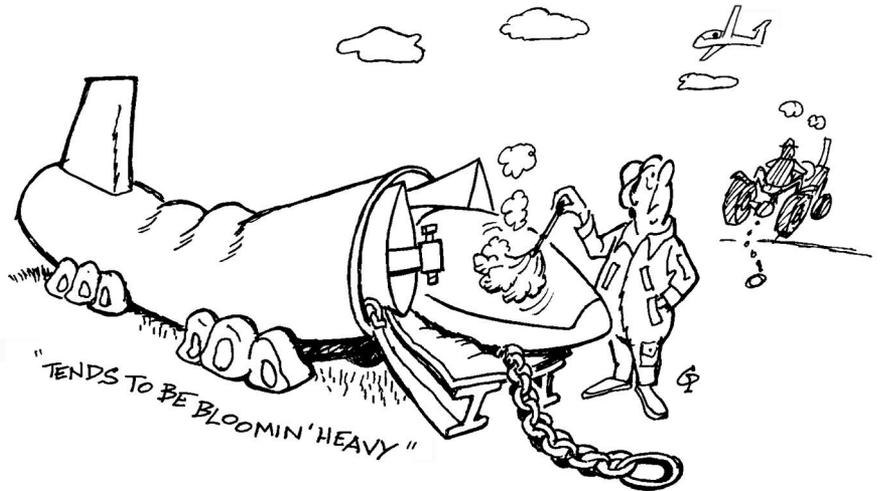
After this, the end is inevitable. Either White responds with, "Yes, but I'm not capable of 10% more skill" (unlikely), or "Yes, but I want to spend lots of money on a new glider", in which case Black has won by default as the original game was around White's love of cross-country flying and pushing himself further, not his love of new toys.

Span, span, span, span ... The real heart of the TINSFOS/SIFOW argument is, of course, not span at all, but performance. If R&D Aviation could sell a £5000 widget that would improve any sailplane's performance by 30%, we would suddenly have TINSFOWidgets instead. No, the question of span is the fixed battleground. For newcomers this argument is as follows:

Glider 1 is a small span ship (read 15m maximum) with a glide angle of 35:1. Glider 2 is an 18m span model with tips on, and screams along at 48:1. "Mister 15m" and "Mister

18m” are flying in the same air on the same summer’s day. From this you can deduce the following:

- 1 Mr. 18m feels smug that he has 3m more than Mr. 15m and even more smug that he has the latest wingtips.
- 2 Glider 2 can cover more air, looking for more thermals using up the same amount of height than Glider 1.
- 3 Point 2 is the reason for point 1, apart from the tips which (probably) add no value at all – just cost a lot.



After half an hour, Mr. 18m looks out and, for reasons he cannot fathom, sees Mr. 15m in the distance, ahead of him and higher; how can this be? The laws of thermodynamics, subatomic physics (or whatever) clearly forbid this? Pah! This is just the flawed thinking we have come to expect from TINSFOS pilots. The truth is out there.

- 4 Mr. 18m was flying along at a glide angle of 48:1. However, for reasons unknown, he was doing so in a mixture of sinking and still air with the occasional wobble into the edge of a thermal. His achieved glide angle, in relationship to minor things like the Earth, was something other than 48:1.
- 5 Mr. 15m, seeing Mr. 18m sinking on a straight path as dictated by his GPS thought, “I’m glad I don’t have a GPS to tell me where to fly. I’m off to find some rising air.”
- 6 Neither pilot found a decent core, but Mr. 15m used his inferior glide angle to descend through superior air masses and consequently thumbed his nose at Glider 2 and said pilot. His effective glide angle was far better than Mr. 18m (now known as Mr. Sink). Mr. 15m was a gentleman-pilot and he had followed the energy.

Afterwards, the two pilots chatted in the bar (Glider 2 had been retrieved by this time):

- Mr. 18m “Ah yes, I saw you go by, I just missed that thermal. It arrived before I could centre in it. Still, press on, that’s what I say”.
- Mr. 15m “Uh-huh”.
- Mr. 18m “Yes, still I marked it for you, saw you weaving all over the sky, thought you might need some help”.
- Mr. 15m “Uh-huh”.
- Mr. 18m “Still wingtips are fantastic; honestly, the difference it makes when the MacCready is set to 5 is really noticeable”.
- Mr. 15m “Uh-huh”.
- Mr. 18m “Ever thought of getting a proper glider like mine? There really is no substitute for span you know.”

This is exactly the same argument that keeps the golf industry so healthy: “I’ve been playing for years, but I can’t seem to get my handicap any lower. I know, I’ll buy a new set of clubs.” Brilliant! Obvious! The fact that, rather than shelling out £400 on a new set, our golfer could shell out £40 on a couple of lessons is clearly irrelevant. The fact that the new skills would make a real difference whereas the new kit will be out of date in a year is also beside the point. It’s not what you’ve got, it’s what you do with it!

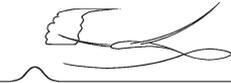
The last point I will make in my case for SIFOW is that span tends to be bloomin’ heavy. For technical engineering reasons, they don’t make long wings out of marshmallow – they use really light stuff in the middle then use so much of it, it becomes heavy, then they surround it with stuff that has always been heavy, and then they stick metal pins in it.

This is the reason that on ‘marginal days’ (read MacCready set to less than 4), TINSFOS pilots only get as far as rolling the fuselage half way out of the trailer and pretend to fiddle with the vario or install a new flight director. Those of us with small gliders can get the fuselage and wings out and rig. The point being that whilst the big boys are on the ground, thinking about their better performance, the SIFOW brigade is flying.

Actions I could go on, but I won’t. I will now assume, for reasons I cannot hope to justify, that after reading this far you have thrown out the lore of TINSFOS and become an acolyte of the SIFOW truth. What is the path you must follow to become a true believer? There are three paths you can take to fulfilment and enlightenment:

1 Do nothing This is a cheap option, as you don’t have to buy anything bigger or better. You could try to pick up a few flying tips from those who know, but don’t worry too much. As long as you no longer drool over tips or dream of span, I am happy and you are a SIFOW believer. Well done.





Heading north on the Livingstone Range at 9000, wind from the left. Tony asked for a back seat checkride in the DG-1000 and in turn he introduced me to ridge and thermal soaring on the west side of the Livingstone range at an altitude lower than my previous solo comfort level. Thanks, Tony! Previously, I had limited ridge soaring at Omarama, New Zealand and had only ridge soared the Livingstone Range on the east side with an easterly wind and more easily accessible landout locations.

Peter Cromer

The Cowley camps

Geoff Minors, Director of Cowley Operations

Summer camp - July 25 - August 3

WITH THE VIRUS, it was very uncertain that this camp would happen. With Covid protocols in place at Cowley, it was down to the number of preregistered pilots committing to support the camp for the week. I was pleasantly surprised by the number who were willing to come to Cowley from as far away as Montreal. 30 pilots registered.

The weather was as good as it gets. The ASC winch was available for winch training for those who wanted it. Camp started off well on Saturday with the ESC using the winch. On Sunday, with more pilots arriving, there were a good number of flights with winch and aerotow. Unfortunately, on Tuesday at the end of the flying day as the ASC towplane was returning to the hangar, it came into contact with Cu Nim's DG-303 which had just landed on the side of the runway. Nobody was hurt but the towplane was grounded and the 303 had the right wing damaged beyond repair. This could have been the end of the camp! Phone calls were made to the Edmonton Soaring Club who offered the use of their Pawnee which was flown down to Cowley to resume flying operations on Thursday.

The ESC towplane was used to the end of the camp. A huge thank you to ESC for allowing the use of AVL to save the camp. On the last weekend of the camp we had a BBQ which was organized by Rosemary Minors. Good food and good company and stories shared of achievements made

during the week. At the end of the camp we had 148 flights recorded and 30 pilots attend. This was a very successful camp and thanks to all who helped support it.

Fall camp - October 3 - 12

With the ASC towplane awaiting repairs, it was again uncertain if the camp would happen but again ESC stepped up and offered the use of their Pawnee which was ferried down at the start of the camp. Meanwhile plans were being made to get PCK ready for the camp! The engine was brought back on Saturday and installed by the end of the day. I for one was very pleased that we had two towplanes available for the camp! There was a problem in the haste to getting PCK ready. Log books were not filled in and PCK had to be flown back to Red Deer and a final engine check to take place. Patrick Pelletier flew PCK to Red Deer and back to get this work done.

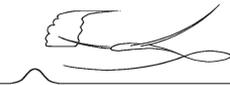
Wave conditions were very favourable during the week. Several Gold and Diamond badge legs are being claimed and congratulations to those who did this. The big story was the 2-seater altitude records being broken by Patrick and Melanie; they share their story in this issue of ASCent. Congratulations on this achievement. Such achievements really help the future of the camps that ASC organize. With Covid-19 it was not possible to hold an end of camp dinner and the camp ended early on Saturday when excessive winds made it unsafe for the towplane to launch gliders.

We had 26 pilots registered and 63 flights. Cowley lived up to its reputation of having first class wave flying and being a gold and diamond mine. Thank you all for the support you give to make this happen. See you next year for more memorable experiences at the "Cowley Soaring Center". ❖



Tyler Paradis

Friday 9 October, looking west to the Livingstone Range. It would be a pretty nice day except for all those clouds!



Dehydration without thirst

Dr. Daniel Johnson

from *SOARING*

WHEN WE COOL OFF IN CLIMB, we lose body fluid: we lose volume, not merely water. Volume loss – water PLUS the electrolytes it carries, does not cause thirst until it's severe. With volume loss, we feel weakness and fatigue. Taking only water does not restore the lost electrolytes (usually salt).

Leroy, an ordinary soaring pilot, went to the airport on a lovely day. It would not matter if the pilot were Leticia because the physiology is the same. The story is true but names are changed.

It was a pleasant morning, so he wore light clothes. He spent about an hour-and-a-half assembling his glider and doing light maintenance. With this activity, he sweated a little, just enough to make the band of his cap wet. When he was ready to tow his glider to the runway, he realized he was thirsty, so he drank two tall glasses – about a pint – of water.

A technically-aware pilot, he checked the temperature-dew point spread. On one hand, he was keenly aware that he could estimate the cumulus cloud bases in thousands of feet above ground by subtracting the dewpoint, 35°F, from the day's predicted maximum temperature and dividing by 5.

He was not so keenly aware that, while he was flying near cloud base in the shade, the temperature in his cockpit would be roughly the temperature of the ground dewpoint. He did realize that it would be cool aloft, so he put on a light jacket. He immediately felt too warm, so felt satisfied.

It was indeed a fine day. Once launched, it was not too difficult to find good thermals. Cloud base was actually about 2000 feet higher than forecast, and he idly noted that his glider's thermometer showed the temperature to be below freezing. He closed the vents. When near cloud base, in cloud shadow, he felt quite cool, though he did not feel cold and did not shiver. The cockpit was pleasantly warm in the sun between thermals and a little too warm when he got low and had to scratch for lift.

After about an hour and a half, while zipping along near cloud base, he realized that his feet felt a little bit cold, and he also realized that his lower abdomen would feel much more comfortable if he used the Dependable cockpit-emissions garment that he often wore but seldom needed. He had brought water, but didn't feel thirsty and so he didn't use it.

It was a fine day. He was able to fly about 4 hours, was able to complete a modest triangle, and enjoyed a fast final glide back home.

He felt pretty good about the day, and in celebration made a beautifully executed steep turn from downwind straight to final. At the apex of the turn, he felt a little bit strange, but wasn't sure why. There was a light crosswind, slightly gusty. Though he didn't bounce, he whacked the ground a little more sharply than he preferred, and the wings wagged a little bit more than he would've preferred in front of the gliderport spectators.

He drank some water, then disassembled his glider, put it in the box, and went home. All evening he felt quite thirsty and had drunk 6 or 8 glasses of water by the time he went to bed.

In the morning, he passed a turd that was somewhat firmer than usual.

What happened?

First, we must clear up a common misunderstanding about water. The ancient Greek word for water is *hydor*, the root of all things hydro- in English and many other languages. But in thinking about our bodies, it's better to consider it to mean "liquid," "juice," or "soup." In other words, we seldom lack purely water because we often lose both water and the stuff that's in it within our bodies. Our bodies consist of a variety of different soups that are encapsulated by membranes, in which are proteins, salts, and cells, and held together by sinews and bone.

We generally lose proteins and cells along with juice only when we bleed. We may lose protein with juice if we have kidney disease. Otherwise we always lose some salts (electrolytes) along with water.

Thirst is exquisitely sensitive to water loss. There is a "salt appetite" that is relatively insensitive. When we lose bodily juice of any kind, and replace only water, we fail to replenish volume, so drinking until thirst is quenched fails to replace the volume we've lost.

This is because quenching thirst shuts off the drive for water when the proportion of water to salt in the blood has become ideal – but if we've lost volume, simply quenching thirst wrongly shuts off part of the volume-preserving mechanism prematurely.

Types of body juices

Urine The kidney excretes any salt/electrolyte that is present in excess, and transforms into electrolyte many waste products to make them water soluble. The kidney does excrete excess water, and must excrete some water in order to get rid of the electrolytes it produces. This is called the obligatory water loss.

Cold diuresis As the body cools, the veins under our skin in arms and legs constrict to stop radiating heat, and the arteries to our extremities constrict to reduce outward blood flow to protect our core temperature.

This reduces the capacity of our circulatory system and increases the pressure in central veins. This is interpreted by our body as “too much juice” and a signal is sent to our kidneys: “Too much juice onboard; get rid of the extra.” This is why we need to pee an hour or two after getting cool (we don’t have to feel uncomfortably cold).

Important – no thirst here This is balanced water/electrolyte loss, so we lose volume without thirst. It even helps to already be a little volume-depleted when we cool down because there’s less inconvenient urination. In case it’s not obvious, trouble comes when we rewarm, because our vasculature expands and we don’t have enough juice to fill it.

The time to drink sport drinks is while we are warming up – during descent in hot weather, or in the recovery-sauna in cold weather.

Years ago, I received a nice letter from a paraglider pilot: “You saved my life! I didn’t understand why my landings were so sloppy in Death Valley after flying at 17,000 ft. I lost one of my friends in a bad landing there.”

After-chill I received an e-mail with another aftermath of flying in cool temps that said, “I spent most of the 5 hours flying with Outside Air Temperature (OAT) ~8°C (45°F). I pulled the glider about 30 ft (9 m) to the staging area and walked to the bathroom. When I came out, I was shaking

with cold. Why? It was obviously much warmer on the ground than in the cockpit.”

This is called “reperfusion hypothermia”. The pilot feels cool but not cold lying in the sunny cockpit, wiggling ankles and wrists for five hours. During this time, the muscles receive little blood flow and eventually contain a fair amount of chilled blood. The pilot’s core temperature has been protected by the normal mechanisms that restrict circulation and so he merely feels cool, not realizing how much his core temperature has decreased.

Then he hops out of the glider and immediately uses his large muscles to move about. This flushes the chilled blood out of the muscles of his legs and lower back, which circulates into his core and drops his core temperature just enough to trigger shivering.

This pilot then warmed up by using his muscles to disassemble his glider. This muscular metabolism generated enough heat to lessen his hypothermia. He did not become weak or faint because he had hydrated well during the flight.

Sweat There are two kinds of sweat, the smelly kind (apocrine) that develops with puberty and aids social distancing, and the salty kind (eccrine) that exudes from skin everywhere for evaporative cooling when we get too warm.

Sweat is a distillate, as it were, of blood: Sweat glands exude water and electrolytes, and the sweat gland’s tubules recover much of the electrolytes (sodium, potassium, and chloride) as the sweat migrates along the tubule to the skin, for evaporative cooling.

How much salt we lose depends on three things:

- *The rate of sweat flow.* When we’re sweating heavily, the gland tubule doesn’t recover electrolytes well.
- *Our dietary salt intake.* The sweat glands go into a salt conserving state if we follow an un-American low sodium diet.

Is it water or volume that you lost?

- Thirst reflects water deficiency sensitively. A 1% increase of osmolality – electrolyte concentration – results in thirst. In practical terms, this is a loss of about 1% of body weight in water. A pint is a pound, so 1% for a 200 lb person is a 2 pint water loss, almost a litre.
- Thirst reflects volume deficiency less well. About a 10% decrease of blood volume results in thirst. The average blood volume is about 5 litres, so that’s about one unit of blood (525 ml). Loss of volume causes weakness before thirst. Salt lost with sweating delays thirst because it decreases the osmolality drop that would occur purely from the water loss.

Excess water is undetectable

- With water loss or salt intake, fluids are more concentrated (higher osmolality), shrinking cells. Separately, this causes thirst: water-seeking and the release of vasopressin, a hormone, raises blood pressure and increases water retention by moving aquaporins into the cell membranes of the kidney’s collecting ducts.
- There is no “un-thirst” when water is excessive (salt is never deficient).

- **Heat acclimation.** With several days of continual exposure to heat, sweat glands go into a salt-conserving state. (It takes only 24 hours in an air conditioned environment to lose heat acclimation.)

The Sum of All Sweating is that we *do* lose sodium and chloride when we sweat. If we've been sweating heavily, we need to replace both salt and water. If we only take water, our thirst is quenched, but the lost volume isn't restored – so we feel good, but haven't regained g-tolerance (for example).

Guzzling water in response to heavy sweating will dilute the blood and body electrolytes severely, and it has killed athletes.

Gastric juice If you're sick and vomiting, you won't be flying, because who wants to clean the cockpit, eh? If you were sick yesterday, one of the reasons that you still feel crummy today is that you lost more than water.

Key to this point is that stomach juice contains both proteins and chloride (hydrochloric acid). If we vomit, we lose acid. Read your favorite medical physiology textbook to find out why the kidneys then excrete potassium and bicarbonate. The loss of volume and acid increases and prolongs the nausea, so the best way to recover is to sip on fruit juice for a few hours. Four ounces an hour is enough to keep you safe and usually can be tolerated even with a queasy stomach. Orange juice and grapefruit juice are the two commonly available fruit juices high in potassium.

The point here is to help you recover as fast as possible so that you'll be safe when you drive or fly.

Diarrhea The colon (large bowel) is an emissions control device. The small intestine, having absorbed the useful nutrients, sends a steady stream of fluid into the colon. The colon absorbs all the extra water and electrolytes, the bac-

teria process the indigestibles, and the result is a soft, compact mass, mostly bacteria with food fiber.

When we have diarrhea, the colon is ill and impaired, failing to absorb both water and electrolytes. We lose volume, and must replace volume. We will experience thirst with diarrhea only if the volume loss is severe or when water is lost disproportionate to the electrolytes.

The electrolytes lost are sodium, potassium, chloride, and bicarbonate. The proportions depend on the cause of diarrhea; the best treatment for this is to sip oral rehydration drinks, available at your drugstore, or to add a quarter of a teaspoon of salt to a pint or more of fruit juice.

Stool consistency is the most effective way to judge your hydration strategy. If stools are firm, you simply didn't take enough water yesterday.

What happened to Leroy?

- He was sweating for an hour before he took off and replaced only water, so he was short on volume.
- His mild volume deficiency was invisible because his blood vessels constricted as he became cool after take-off (also diminishing the cold diuresis).
- When he became cool aloft, he urinated frequently as his blood vessels contracted. This represented a balanced volume loss of water and electrolytes, so he was not thirsty. He was not volume deficient while cool; if he drank extra fluid in flight he would simply have peed it out quickly.
- He was correct to not drink aloft: his vasculature was contracted, and he would simply have urinated more. If we become thirsty, we should take water, for thirst is a reliable sign that the proportion of water to electrolytes in the blood is awry (noting that thirst does not reflect volume status reliably).
- When he warmed up at lower altitudes, his vasculature relaxed, and he did not replace the volume he → 18

Usefulness of salt

- If you've lost volume, you'd best replace volume (salt + water).
- If you drink water when you need volume:
 - thirst is quenched quickly, but
 - volume is not replaced, so that anti-diuretic hormone continues to be produced, and excess water is retained, out-balances body salts, dilutes body water, and hinders brain cell function, etc.
- If you eat salt, you gain volume but you must drink water to maintain osmotic balance (concentration).
- Use a sport drink to replace sweat. By weight replace 1/2 the loss immediately, 1/2 over the next half hour.

Drawbacks of salt

- 20% of people develop high blood pressure from extra salt. About 500 mg of salt daily are enough – Americans eat about 5000 mg of salt daily.
- Salt in the diet replaces the potassium that would protect for the effects of high blood pressure.
- Excessive need to urinate occurs; all that extra salt is got rid of only one way, by pee.
- Salt is slowly lost.
- Increased volume is harmless to healthy persons.
- Geezers with bad hearts, kidneys, or livers retain the volume and get edema, shortness of breath, and much more.

Simple minimum salt diet

- Only eat fresh food; add no salt. Minimize peas, celery, and milk – each has about 200 mg sodium per cup.
- Don't eat:
 - Cheese (it's preserved with salt).
 - Pickled stuff (pickling is soaking in brine).
 - Processed meats.
 - Canned stuff (brine).
 - Snack foods and candy (yes, candy).
 - Restaurant meals – unless you can negotiate with the chef.

ASC Treasurer's report – Gerald Ince

Early in 2020 Jason Acker, President of the Alberta Soaring Council (ASC), was informed that we would no longer be receiving annual funding from *Alberta Sport Connection* (see Jason's report on page 2). As an Alberta based sport/recreation group, the ASC has received funding from Alberta Sport Connection and its predecessors since 1987. ASC was one of several sport bodies defunded as part of an ongoing review and reorganization of provincial government finances.

The ASC Executive has taken a number of steps around the defunding notification to mitigate the financial impact and seek alternative sources of funding for ASC and the sport of soaring in Alberta. The loss of the largest source of income for ASC means that we will have to examine how the organization operates, its programs and activities, and the assets which we maintain and operate. The ASC Executive will be meeting (virtually) this fall and winter to discuss next steps going forward.

Firstly, the ASC Executive has been continuously active seeking other grant programs and additional funding options to supplement the Alberta Sport Connection funding. So in 2018, Jason Acker took the lead to apply for a casino licence for ASC, and last year we were informed that our application was successful. ASC was put in the casino rotation at that time and our first event is expected to be in the Edmonton area in 2021. ASC will be required to provide a volunteer labour force to work at the casino and we will be seeking volunteers when we get closer to the date.

We also undertook immediate steps to reduce our operational expenses and manage our cash position as a result of the change to our funding. Some of the steps that have been taken were:

- Our Executive Director and Cowley Director continued to provide services during 2020 but have not billed us for their services under their contracts for the latter part of the year. Going forward these contracts will have to be examined in light of our current situation.

- ASCent will move to an on-line format only as the cost of printing and mailing a magazine to our members is prohibitive in the current environment.
- We will be continuing to reduce overhead expenses by meeting virtually rather than in-person to minimize travel and accommodation expenses.
- For 2020 at least we will have to review the expenses we can support under our programs in the areas of Competitor Support, Youth Support, Instructor Training, and General Club Support although support requests in these areas will be much lower than normal due to the cancellation of contests, training and other activities due to COVID-19.

One of the growing expenses facing our organization is insurance. We have always maintained insurance on our assets (towplane PCK and the winch). Liability insurance, however, is becoming a larger part of our budget as we are required to maintain liability insurance as part of the Cowley Licence Agreement as well as for the Executive and Officers of ASC itself.

Finally, we will be reviewing the costs associated with maintaining and operating PCK and the winch. We may have to adjust our fee schedules for PCK and the winch to ensure we are covering the costs of operating these assets on a long-term basis.

As we wind down the 2020 soaring season, most of our expenses for the year are now known. The costs of repairing towplane PCK, which was damaged in a ground incident at the Cowley summer camp, will largely be covered by insurance. Although we will report a financial loss for the year, we have the financial resources (cash and investments of about \$45,000 at 30 September, 2020) to finish the year and pay our insurance expenses at the start of the 2021 season.

We look forward to finding new and innovative ways to maintain and grow the sport of soaring in Alberta ❖

dehydration without thirst

from page 17

had lost while urinating during flight. This reduced his g-tolerance, which made him feel weird in a steep turn from downwind to final, itself perhaps a sign that his volume loss had impaired judgment. His awkward landing may have been related to this.

- He drank only water after he exited the glider. This relieved thirst, but did not replace volume. He thought he was tired because he had had a long flight. In fact, he had been lying in a chaise longue wiggling his ankles and wrists, which is not considered a form of exercise. He

was fatigued because his volume was depleted. Some people get headaches with volume depletion. Leroy is headache-immune.

- Significant volume depletion is associated with thirst. In addition, Leroy had some salty snacks and salty food for supper. These reliably cause thirst; no surprise he was thirsty all evening.

A pilot said to me, "I started your low-salt diet. I can hardly believe how much less often I pee. I can sleep all night without going to the bathroom!" ❖



Span is for wimps

from page 11

2 Do something This is still significantly cheaper than the road to TINSFOS, but a tad more expensive than the first option above. The 'something' you should do is to go and fly with someone better than you are, and engage your brain. Your choice of guru is up to you, but I can think of worse places to start than a week at another club, flying new gliders, at new sites, and drinking new beer. Anywhere that can offer you a new challenge is a good place to begin; just remember to learn something there. The inevitable outcome of this is that you will become a better pilot, and hence fly further, faster and happier (or whatever your plan is) when you get back into your same-spanned ship.

3 Buy something smaller This is the path that most appeals to me. I'm positive that for most people, their flying performance has mental, not glider-related,

limitations. This means that if you buy something smaller, but in the future can still fly the same tasks you fly now, your skills will have increased, not to mention the extra points to be earned in a handicapped competition. You also have the added advantage of walking tall amongst all the pilots that took the TINSFOS route and have not actually improved. "I could have bought an ASG-32, but traded in my DG300 for a Russia instead." If you had flown 300 kilometres in a ASG-32mi, no one would have given you any credit (snide remarks maybe, along the lines of, "who *can't* fly a 300 with twelve miles of plastic"). Fly the same task in the Russia and you are SIFOW personified. Your big cross-country flights will be talked about by the country's pundits, your ridge flights will have the hang glider crowd bemused, and you can rig the thing single-handedly with no extra gear needed.

Wow!, give me a pen. "Dear Sir, I'd like to place an order for..." TINSFOS is dead – long live SIFOW! Phew! ❖

Letter to the Editor

The lure of a career in aviation

Dear Editor,

I am always amazed by the variety of people who are glider pilots in Canada. For a long time, many of our members [at SOSA] were German, who learned to glide in the 1930s, there are a fair number of British ex-pats, and now we have many eastern European pilots who somehow managed to fly despite strict rationing of consumer goods and services. At our club we have a broad spectrum of job descriptions, including a Libelle partnership between a doctor and a mechanic.

Of course, some professions have more glamour than others, and I recently met a member who is an airline pilot, and he spoke of how the mere mention of that in a crowded bar elevated his 'attractiveness quotient'. I told him that I, too, have a career in aviation, working for an outside contractor. He pressed for details, and I said that *as a club towpilot*, I worked at a major hub airport and was instrumental in getting passenger aircraft turned around and ready for prompt on-schedule departure, a key feature for air carriers that need to be competitive.

He wanted to know more, and I told him, in confidence, that I also cleaned the washrooms and emptied the sewage holding tanks, working on call at all hours. He said that I seemed like a nice guy, and that if I wanted a change, his uncle had an opening in his office, that I could work there in a suit and tie, at a good salary.

I exclaimed, "What! And give up aviation!"

Yours truly, **Doug Scott**

Selling a 2-22 to Indonesia! Geoff Minors

The Lethbridge Soaring Club's first trainer was the 2-22 XUB. This low performance ship started LSC as a club and it first flew at Claresholm on 4 April 2014. It was a big milestone for the club. Since then we bought a more modern glider making the 2-22 redundant, so we decided to sell it with an ad in *Wings & Wheels* in the summer of 2019.

There are many scams out there trying to get you part with your money and I've had a few of these, so was diligently vetting all inquiries. Then I had a message from a person from Jakarta! I thought, here we go again! I asked that they provide me with official government proof of who they were. I followed through with the info they sent me. More paperwork was sent to me as this turned into a very serious inquiry. E-mails were frequently exchanged and calls made via *Whatsapp* late at night or early morning. It took a long time for them to get their import paperwork in order, and lots of paperwork on my end also made it eventually happen. A wire transfer was made into the bank account of LSC and the deal was done, almost 12 months later.

Now the problem was, how was it going to be shipped to Jakarta and the timing. I suggested that I could take it to a shipper in Calgary as we are now starting into winter and I wanted it on its way asap. Many phone calls later I had a date to deliver it to Calgary to prepare it for its long journey to Jakarta via Singapore. On 19 October I took XUB on the start of its long journey. Safely delivered, I said a fond farewell to XUB.

This was the glider I did my final flight test in, took my first passenger flight with my wife Rosemary, many instruction flights, lots of good memories. This old glider which started LSC has now gone to a new home in Jakarta and I have been told it will be soaring there. ❖

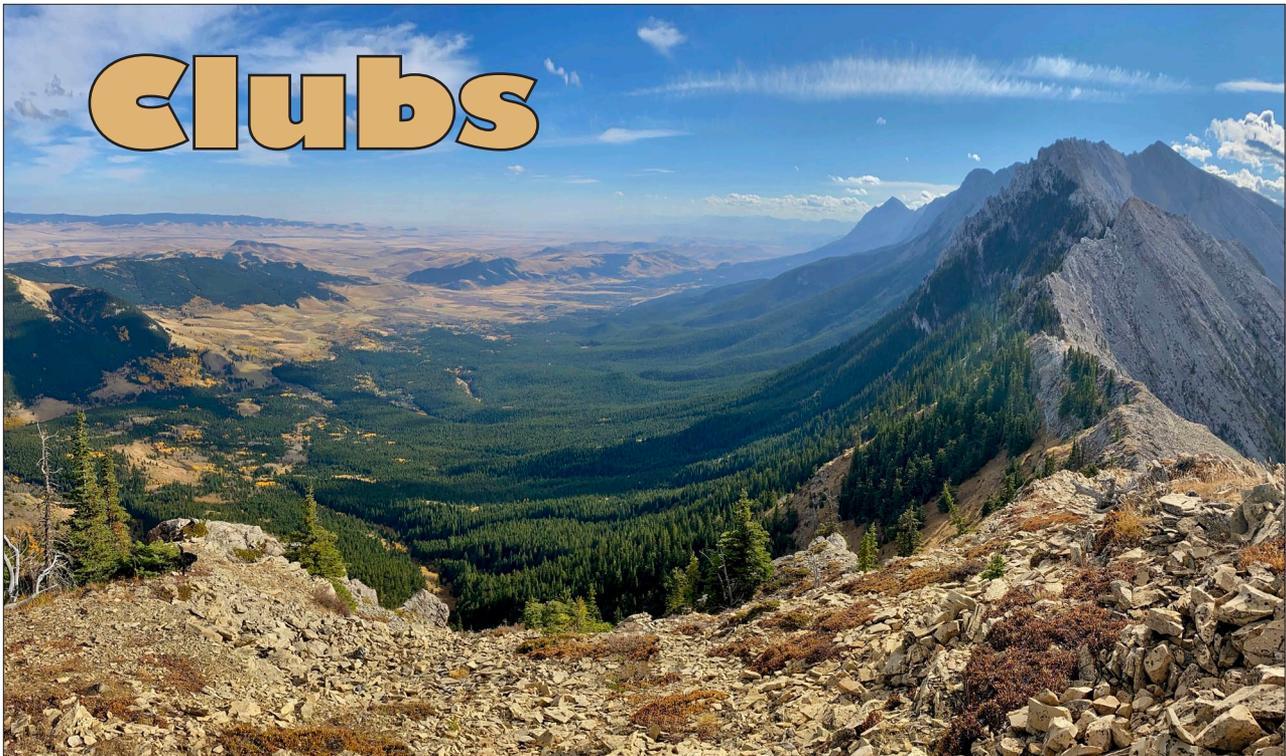


Photo looking south from a point about 5 km south of the Old Man River Gap. The picture, for me, delivers the feeling that it could have been shot from a sailplane's nose-mounted camera during a southern flight along the crest of the range. It was back in the 90s that Monica and I, on the summit of Centre Peak, thinking we were alone, were suddenly and startlingly alerted to the presence and sound of two sailplanes – then the sight of them as they skimmed the ridge within what seemed like 40m ... and then, incongruously, disappeared from our view. We felt like gophers must feel when they, hearing a rush of wind, are about to be grabbed by outstretched talons. This past week, while splitting and stacking firewood, it was a treat to see sailplanes being towed and released northeast of our home.

David Macintyre

Cu Nim

Through this great community and the collective efforts of its members, we overcome gravity, rise above the land and set our minds free. Soaring over fields and rivers, sailing among the clouds of this big sky country, riding that great mountain wave. When the day is done, we sit with friends and we wonder – was it all a dream?

Pawnee C-FTTY – Without a towplane due to the in-flight accident last year, and wanting a more powerful tug, the club decided to look for a Pawnee replacement. After the first candidate did not meet criteria, the clouds of the COVID-19 pandemic gathered overhead. Nevertheless, through much perseverance, a different Pawnee was eventually purchased and recovered from North Dakota to begin a lengthy inspection and import process back in Alberta. It wasn't easy and Soren has more than one period of border-crossing induced isolation to prove it.

Intro to Gliding – In April, Al Hoar and Casey Brown ran Intro to Gliding sessions. Originally planned as in-person

events, they shifted to online and generated a great response and interest in gliding and the club.

Covid-19 planning – As society was still adjusting to the shutdown of much activity, Cu Nim members began in earnest in late April to plan for a delayed season opening. Rather than wait for guidance and examples to follow, Cu Nim developed plans and guidance based on the staged re-opening set out by the Alberta Government.

June 3rd start of operations – Once order CMOH 19-2020 was released on 14 May, we now had confirmation of a path



Simon Youens

to opening for the season. Cu Nim led the way for Alberta gliding clubs in 2020.

ASK21b C-FXCN – Given the uncertainty on whether flying would be possible in 2020, the purchase of the ASK-21b was stalled early in 2020. Arranging payment, shipping, customs, import, inspection and registration was the second fleet challenge of 2020 – a challenge answered by Patrick and Sandy (plus many more). By mid-July it entered service and has been the training workhorse ever since.

Passing of Phil Stade – Though Phil's fate had been certain for a long time, preparing for his passing did not lessen the loss felt at Cu Nim. As the day drew close, a fly past was arranged which included private aircraft and the club's DG-1000 on tow (see article in this issue). With the funeral being limited in numbers, a gathering was held at the club to remember Phil and all he did for Cu Nim and the gliding community in Alberta.

Student flying – There was so much interest in learning to glide this summer that we had to turn people away. Those who did make it in the door included those new to flying and others converting from powered aircraft or regaining their currency after many years absent. Perhaps for the first time in Cu Nim's history, twin 13 year old boys joined. Joshua and Kaleb Bagrowicz quickly learned to glide and are eagerly anticipating their first solos, but they'll have to wait until at least December when they turn 14.



Patrick McMahon

Summer Cowley – I think the summer camp benefited from people staying within the province and saw record numbers when comparing to the last few years. It was hot and the flying was great. Cu Nim single-seaters retired early when the DG-303 was damaged in a runway collision (and subsequently was an insurance write-off) and the ASW-19 needed a Hotelier connection replaced.

Purchase of PW5 – A single-seater was now quickly needed, and members came together and agreed to purchase a PW5 based in Invermere. In contrast to the previous two fleet additions of 2020, the PW5 was paid for and flying at Cu Nim in less than a week. It serves new solo pilots and those working on Bronze and Silver badges.

Fall Cowley – Fall Cowley is the stuff of legends. Once again, Cowley attracted record numbers of pilots when looking at recent years of activity. Those that came were rewarded with warm weather and wonderful wave flights.

As of Halloween, we are still flying (although we did have a pause due to snow). We're on the lookout for the next single-seat aircraft. Flying will continue as long as it stays warm enough. So much happened this year that it really does feel like a dream. I couldn't have hoped for a better gliding season for the club given the uncertainty at the opening of the season, and I am eagerly anticipating 2021.

Ben Hornett

Central Alberta

Like every other club in the soaring world, CAGC had its challenges in determining how to operate in a pandemic but, happily, we were able to fly without any issue. Carol Mulder crafted COVID-19 protocols for operations and everyone was extremely diligent in following them. June 13 was our first day of flying with one glider, the Super Blanik L23, and with the privately owned Citabria. This decision was mainly due to the cost of insurance. It quickly became apparent that we needed to activate the remainder of the fleet due to more people wanting to fly, student training, requests for familiarization flights and the need for a more powerful towplane to meet these needs. Carol's protocols also addressed the aspect of managing familiarization flights and, again, it worked out very well!

NJK had a problem with one of its cylinders. Thanks to our in-house AMEs, John and Jerry Mulder, who caught the problem (Jerry did and pointed it out to John) and a contact in Red Deer who fixed the problem, NJK got online without delay. This was very fortunate, as we spent more time using Runway 28 this summer due to the strong westerlies. This made for good flying to hone one's skills as the circuit onto 28 crosses the final approach for Runway 34. It's not a problem under normal circumstances, but when itinerant flight traffic and two separate operations are functioning at

the same time, one using a Navajo to ferry skydivers, it made good communication and visual surveillance all the more critical. Truly a collaborative relationship with Alberta Skydive Central and Innisfail Flying Club. As an aside, STARS is using CEM4 when patients need to be picked up from Innisfail Hospital to be transported to Calgary or Edmonton. We did have the privilege of having a mission come to the airport so, again, good communication between all users was paramount to safe operations. Over the winter NJK is going in for a “face lift”— new colours. It’ll be like having a new towplane next year!

This year we had one student, Adam Ali, licensed as both glider and private pilot. His dad, Mukhtar Ali, had his power but worked on his glider qualifications. He soloed and Adam was more than happy to give his dad the “solo shower”. They came from Lloydminster by car or plane to Innisfail for their training. Sometimes, Adam’s younger sister would come along for lesson – a family affair.

John had his Alpin out for more test flying and more tweaking following the test flight. The first flight was 2:20 and to 9200 feet. John always climbs out with a big grin and Jerry is silent as he nods his head indicating another success in the steps in finishing the glider. Carol smiles too as she plays a huge supporting role in this project. The next stage is using the motor.

We had nine people go for familiarization flights. Interestingly, one gentleman from Calgary was a retired constable with the K9 unit who routinely jumped out of HAWCS helicopter with his dog attached to his vest. He loved the flight and, hopefully, will consider joining us in the spring and not to have to worry about having a dog attached to his person. We have two others wanting to fly in the spring.

We were pleased, in spite of cancellation of exhibitions, like the Red Deer Sportsman Show and the Props and Pistons Show & Shine, which is one of our means of marketing our club, that we garnered a lot of interest through other ways, including word of mouth. We had people come from long distances to take a flight just because they heard about Central Alberta Gliding Club.

Lastly, we said good-bye to our Zephyr which was built by Norman Bruce. It was an interesting glider in that the struts could rotate to become the spoilers. A number of members had flown it and have the stories to match the uniqueness of this glider. Drew Hammond took it to the Reynolds-Alberta Museum where it will be displayed as part of Alberta’s heritage.

Our club operated for only a couple of months but it was worth the wait of a late start. We look forward to the start of next season.

Leo Deschamps

Lethbridge

THE Lethbridge Soaring Club faced similar challenges to those faced by all of the ASC clubs this season. With the pandemic lockdowns stretching over what could have been an early season start, it was difficult to know what the right decision was. We could have been operational in early April due to favourable weather and field conditions, but that time was spent in uncertainty. With the situation opening up over June with the provincial stage two, it looked like a season could begin. We began the year with an AD on the Grob pushrod. It had to be removed and drilled at the bottom to check for trapped water and rust, happily neither was found. Then we got to reinstall it and the rudder.

We finally met at the field in early July for the first setup days and season checkouts. From there, the 2020 season was good, but we still faced a lot of challenges. Over the course of the year we had some beautiful conditions at Cowley for training flights and solo time. A look back at our season on Facebook shows the incredible thermal conditions in the summer, a sport flyer visit, the late summer smoky haze, and excellent wave flights in the fall. All in all our students made progress, our members pulled off some memorable flights, and we maintained a safe operation.

One of our highlights was a midweek flying event over a few days during the summer when members’ off work schedules coincided. Several of our children were enthusiastic attendees and got significant golf cart and Kubota time. It was enjoyable for all.

These positive aspects to the season are good to recognize, but we also face challenges. The low membership in LSC coupled with the availability of the members means we do not fly every weekend, and usually only for several days of the ASC camps. With rising costs for insurance on the gliders and the winch, and the absence of fam flight revenue this year, the financial conditions were a challenge.

We had a mishap with the winch when a link was swallowed and chewed up the rollers. Also an oscillator that feeds the line to a drum failed from lubrication issues. Over the winter we plan to rehabilitate and/or replace winch components so that both drum trains are fully operable.

Our trusty 2-22 that was the glider used to kick start the LSC has been sold. Our initial skepticism at the offer from Indonesia changed as progress was made over the summer. All the paperwork for the sale and export has been completed and the old XUB glider is travelling overseas. Geoff Minors took care of all the details and you can look for more of his story elsewhere in this issue.

Bruce Aleman

Edmonton

The 2020 season at the Edmonton Soaring Club was one of the more challenging for us in recent years – the Coronavirus pandemic affected us in many ways. The same can probably be said for all soaring clubs in Canada, if not the world. In March, when the pandemic was officially declared, it was unclear if there would be a flying season. Initial government modeling indicated that the first virus wave would peak in late May to early June which coincided with the timing of the planned 2020 Nationals.

We were very much looking forward to hosting this event. We had an excellent organizing committee in place with assistance from other Alberta clubs. Committee members were working hard to get all the pieces into place. A website was created, sponsorships had been lined up, competitor sign-up was going well, safety plans were developed, and a great social event schedule was shaping up. We were looking forward to implementing the Open Glide Network (OGN), a FLARM-based program that would allow those on the ground to see where competitors were in real time. However, we felt it was too risky to go ahead with the event and decided to cancel. A big thank you to all who worked very hard to organize what I'm sure would have been a first rate and fun contest!

Given the early uncertainty around an actual flying season, we decided that this was the year to address some of the drainage problems on our field. We lost many weekends of flying over the last several years due to water pooling on some spots on the runway after heavy rainfalls. Our Facilities Director offered to work with a grader operator to level and grade parts of the runway. Because of another wet spring, this work was delayed (on its first outing the grader dug itself into the ground up to the axles!), but was successfully concluded over the summer. While much depends on re-establishing a solid grass cover, we hope to have a much improved runway for years to come!

As time went on, the number of COVID-19 cases was going to be much lower than initially modeled, and flying operations appeared to become feasible in June, as the Government of Alberta's reopening strategy was put in place. Based on directives from the provincial government and Alberta Health Services, we developed thorough COVID protocols to keep our members safe and healthy.

Since we couldn't fly from our field at Chipman because of the runway repairs, we examined options to move flying operations to another location. Two of our members live in Westlock, and they suggested that we may want to fly from the Westlock airport. After the Westlock County approved our request, we managed to rent a hangar at the airport and moved one of our towplanes and three gliders to this location. The 2020 season started on June 20 for us! The flying community in Westlock made us feel welcome in

our temporary home. We were able to offer our members the opportunity to fly and actually gained a number of new student members.

Another big story for ESC were the two Cowley camps. Several of our members were interested in participating in the summer camp, and we moved some of our gliders to Cowley. Unfortunately, PCK, the ASC towplane, was involved in an accident at the summer camp, which resulted in the plane being grounded. ASC asked us to provide our towplane (AVL) to be able to continue the camp. We were happy to oblige, especially as the camp was well attended by pilots from across Canada. It was a positive highlight in an otherwise challenging season.

Repairs to PCK from the summer accident were not completed in time for the fall camp. There was so much demand from ESC members to go to the fall camp that we moved all our active gliders to Cowley and again ferried AVL to tow. The fall camp was a great success, as the wave was very active and many great flights happened. One of the highlights was the flight by our own Mel Paradis and Patrick Pelletier (LSC), who took the ESC's Perkoz (PKZ), to 9831 metres (32,254 feet)! This broke the long standing (1961!) Canadian multi-place records for absolute height and height gain. Congratulations, Mel and Patrick, well done! And Tyler Paradis, Mel's husband, Steve Godreau and Ray Troppmann obtained their Diamond height.

In late September we shut down operations in Westlock and moved back to Chipman. Overall flying activities were down for ESC in 2020 as we recorded only 32 flying days and a total of 229 flights (113:49 h), which is about 25% of what we would normally expect in a year. We look forward to 2021 and to re-establishing operations at Chipman.

Regarding the National Contest, the SAC Sporting Committee was open to having ESC host the event in 2021. The Board recently discussed the feasibility of holding the event at Chipman next year. Considering a number of factors, we decided that we will pass on 2021. It is unclear at this point what the status of the Coronavirus pandemic will be next spring, and we are concerned that our field may not be well enough established after this year's repairs to meet the standards of a national level competition. That being said, we would be very interested in hosting the 2022 Nationals.

On a personal note, I want to express my gratitude to my fellow board members and to all those members and friends who supported ESC through 2020. None of us signed up for having to deal with the fallout from the Coronavirus pandemic, but I think we managed as well as could be expected because of all your wisdom, patience, expertise and commitment to ESC and the sport of soaring.

Thorsten Duebel

2020 pilot achievements

Solo (1st/PPL transition/again)

Janice Allen (Cu Nim)
Adam Ali (CAGC)
Justin Bailey (ESC)
Al Bergen (CAGC)
Marc Boucher (Cu Nim)
Mike Busuttil (Cu Nim)
Marc Dumont (Cu Nim)
Taewoo Kim (Cu Nim)
Shaneel Pathak (Cu Nim)
Dan Reid (Cu Nim)

Badges & badge legs

Bruce Aleman (LSC) – Silver Duration
Casey Brown (Cu Nim) – Silver distance
Jeremy Bruns (Cu Nim) – Gold height
Mike Busuttil (Cu Nim) – Silver height
Peter Cromer (Cu Nim) – Silver height
Steve Godreau (ESC) – Diamond height
Taewoo Kim (Cu Nim) – Silver height
Ben Hornett (Cu Nim) – Silver duration, Silver Badge, Gold/Diamond height
Tyler Paradis (ESC) – Silver/Gold/Diamond height
Ray Troppmann (ESC) – Diamond height

Licence

Adam Ali (CAGC)
Taewoo Kim (Cu Nim)

Records

Patrick Pelletier (LSC) & Melanie Paradis (ESC)
– Cdn multi-place height gain & absolute altitude

Instructor rating

Casey Brown (Cu Nim) – new class 3
Carey Fleming (Cu Nim) – new class 3
Steve Godreau (ESC) – upgrade to class 2

What's your personal goal for 2021?

It's hard to improve without having one.

OLC – club results – 2020 OLC year

Cu Nim	14,738 km	83 flights
	16 pilots	15,545 points
Lethbridge	961 km	6 flights
	2 pilots	1,013 points
Edmonton	886 km	15 flights
	5 pilots	955 points
Central Alberta	no XC this year	

Top pilots (OLC best 6 flight total)

Chris Gough, Cu Nim	2643 points
Struan Vaughan, Cu Nim	2216 points
Patrick Pelletier, LSC	1330 points
Ben Hornett, Cu Nim	1227 points
Patrick McMahon, Cu Nim	1223 points
Gerald Ince, Cu Nim	1150 points
Rafal Dzwonek, Cu Nim	1078 points
Chester Fitchett, Cu Nim	863 points



James Craft

Shaneel Pathak gets back to solo status on Oct 2 with his first two glider solos in 26 years. Shaneel says: I am an ex-cadet from Ottawa and received my GPL in 1992 and PPL in 1993. I continued power flying and competed in the Australian National Aerobatic Championships. After returning to Canada, unexpected events (see video below) prevented me from returning until this summer. In August, I joined Cu Nim and enjoy the members and the support I had to get back into flying. I wanted to return to gliding because I like to be challenged when flying, and soaring badges are great goals to achieve.

<https://mail.google.com/mail/u/3/?pli=1#inbox/CllgCHrfSxghHGrTWIMGpdPmwqBfKfMSXrQGjVxXtT-bLNRVpVQdlnFZcPwMmqMLPnQfwfGCcwg>