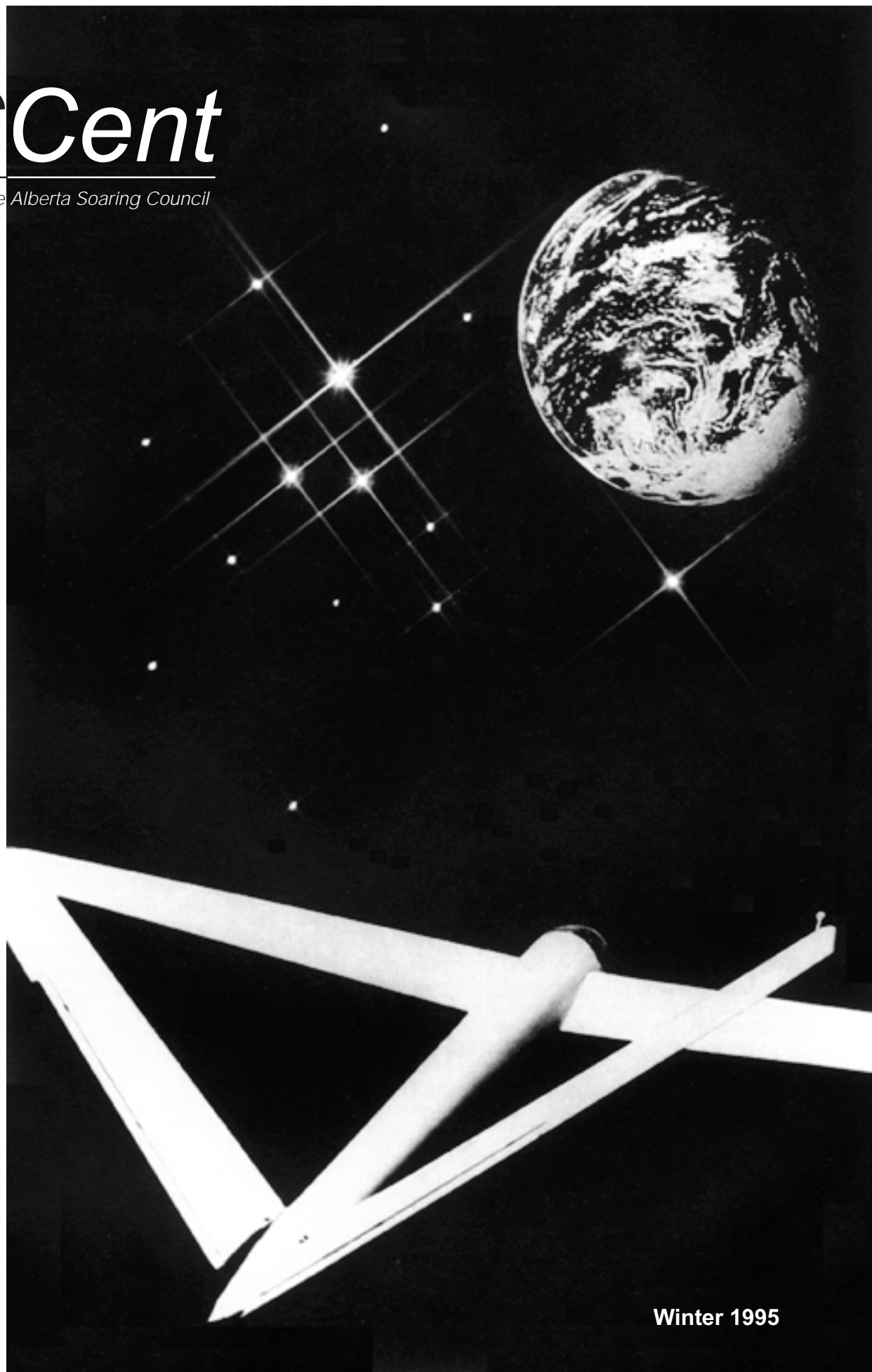


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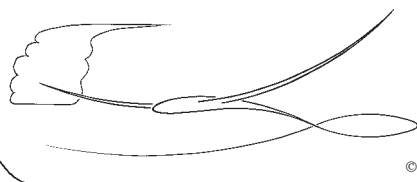
the journal of the Alberta Soaring Council



Winter 1995

ASCent

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Cover

Here's a Canadian arctic night Christmas season composition. Hang in there over winter and have a good flying year in 1996.

Photo by Real Le Goueff

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Editor's notes

This year-end issue is a little short but has a good story by Todd Benko on his Diamond climb at Cowley. What he doesn't say in the story was that after the barograph trace of the flight was examined, it turned out that he had beaten the altitude and height gain records for 1-26s! Nice going, Todd. However, a warning to all pilots using the block — *know and follow* the procedures for using it! A misuse of the block could invalidate a record or badge claim made.

I have included a very good article on decompression sickness (DCS) from *Sailplane & Gliding*, the British gliding magazine. DCS is a relatively uncommon product of very high altitude flight, so it tends not to be discussed much in the soaring literature. The symptoms can be serious however, so we who are making regular use of the Cowley wave need to understand all the risks it presents.

Check out the ASC AGM information on page 15 and get together with a carload of friends and come to the Nisku Inn. Those who have attended the last three years will know that it is a pleasant day of chat, information, recognizing our best, and sharing a good lunch (no quiche!).

Ursula would like someone to take over her modest ASC secretarial duties — she is more in touch with flowers than wings these days. Give her a call now, please.

Lastly, I just received a note from Harold Eley in Regina. “It is with sadness that I inform you brother Norman died rather suddenly on 24 November. He was 84 and somewhat frail, but it was still a great shock when the call came ... He died quietly on his bed after his heart didn't have enough spark left. I guess when all's said and done, that's the way to go.” For all you non-oldtimers, it can be said that gliding in Saskatchewan began with Norman and the rest of the Eley clan in the 30's — Norman was skydiving at 70!



from da president ...

Pssst, buddy ... or lady, wanna good job?

Here's all ya hafta do:

In March, if your in da mood, ya can go to the SAC AGM (Regina dis year, ok? — all on the tab). Den in April maybe you'll hafta rite sumpthin' for *ASCent* 'bout how sharp ya are and all da wunnerful tings you gonna do. Den in May you kin go to Innisfail if ya want — hang out doin' president stuff — ya know, like struttin' around da gliders whilst noddin' yer head knowledgable-like. But don't lower yerself by runnin' any wings or whatever, its not in yer job description. Besides, you could hurt yerself an hafta go on comp.

Da Nats are on in Joon in Red Deer so you kin get on the tux and do more president stuff. July's got Cowley, so more president stuff. August maybe ya sign a few thanks letters from Cowley, and maybe rite sumthin' fer *ASCent* that goes here.

September ya do nuttin — take the month off! October you can do nuthin' again, except talk on the phone some.

November is da only big work month. First you gotta sit for a meeting ta organize da action for next year, den talk to other bosses of dis family (but on the same day so its done wit). Later inna month you go to a lotteries conference to find out how da feds gonna split da take with you ... but make sure someone hasn't put da fix in. Good food, lousy entertainment. Bummer.

So now its December, yuh gotta make an annual report. No sweat, waddid ya do ennyhow? Don't forget to go flying on Noo Year's. End of January you have a meeting wit all da fellas ... just to make nice, yuh know, an tell 'em where its at.

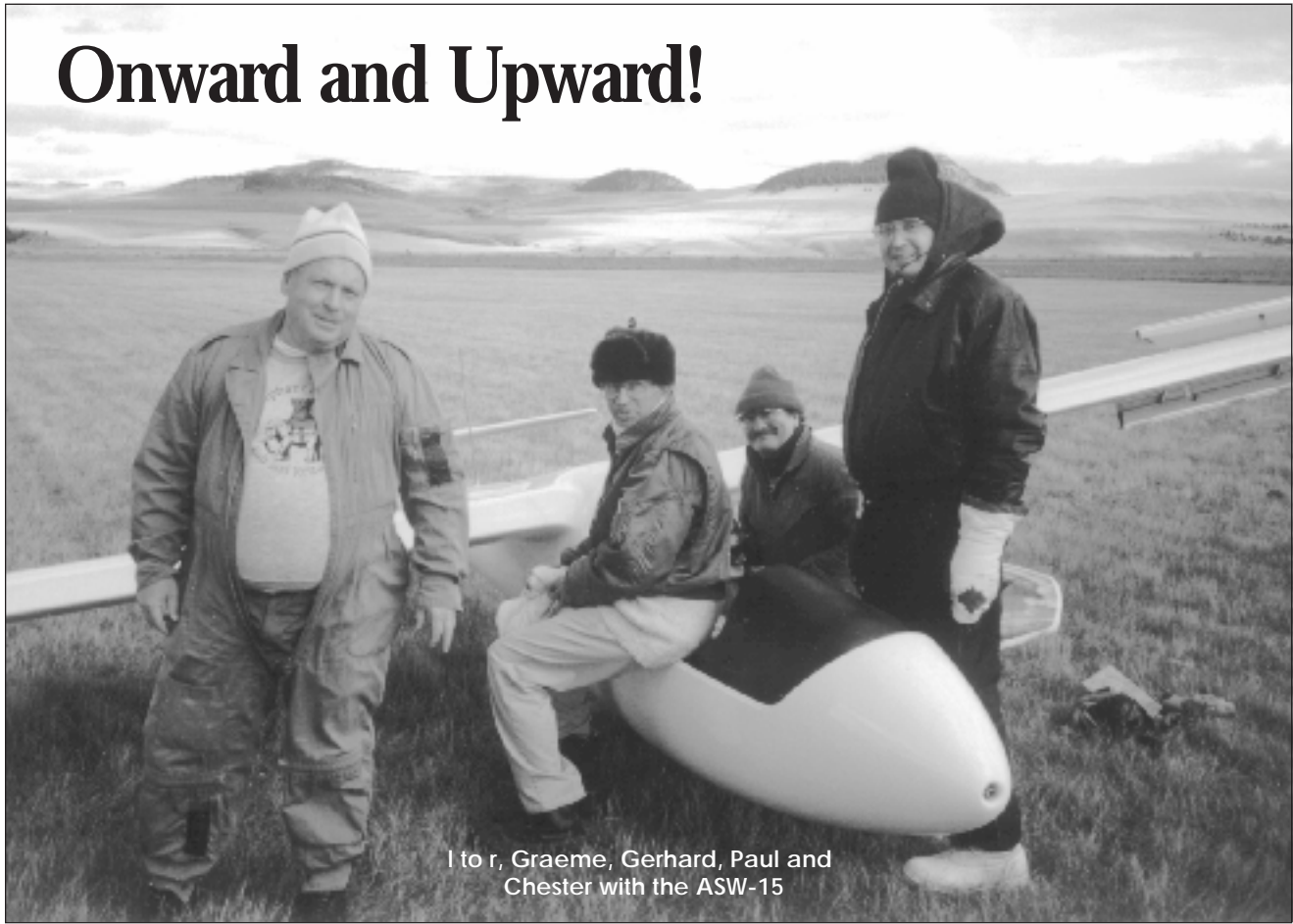
February you start all over again till you die! Hasta la vista, baby.

PS Deres a bit more stuff but Tony and Ursula do da rest. Oh, dat reminds me — enny one of ya wanna be secretary fer life ??

Tony

Marty. da BOSS

Onward and Upward!



I to r, Graeme, Gerhard, Paul and Chester with the ASW-15

Todd Benko

Paul Scott, ESC

This year's wave camp can best be described as exclusive, in fact it was the smallest anyone present could remember, with only seven aircraft registered. Fortunately, one was the Twin Astir which the Cold Lake Club generously made available to those of us needing site and/or wave checkrides. The folks from Cold Lake also provided bailout bottles and helmets for anyone needing them and looked after all the towing (in PCK).

The contingent from Edmonton included Buzz Burwash who ran the operation for ASC, Graeme Craig, Gerhard Novotny, yours truly, and last (alphabetically speaking, of course) Chester Zwarych. Wayne Watts also dropped in for a day or so and took a flight in the Twin Astir. For those of you not familiar with it, the Twin is an earlier version of the late (and to some of us, lamented) ASC Grob 103. It shares the 103's handling characteristics, both desirable and otherwise.

I don't really know what "normal" fall Cowley weather is, probably there is no such thing, but it certainly seemed anomalous to be thermalling up to 10,000 feet

on a Saturday in October in the ASW-15. That is, until I got back to Edmonton and heard that even better conditions had been experienced at Chipman that day. Tony Burton (in EE) and Mike Glatiotis (in his Std Cirrus, JM) both made it to Black Diamond and back, but I had to struggle to stay aloft for an hour and get back to the airfield after a large blue hole developed over the valley. Never mind, it was a useful opportunity to learn something of the geography (the view was superb) and, during the approach, that infamous Cowley wind gradient.

Sunday brought the first really good wave day, with strong westerly winds straight out of the mountains. Although on Friday and again on Saturday there had been wave flights late in the day, none had been to very high altitudes. First Graeme, then Gerhard, experienced short and rough flights after releasing in the rotor. I managed to contact the wave after declining to release at the windward edge of the rotor and waited until the towpilot turned and headed directly towards the mountains, straight into the primary. The lift was everything it was supposed to be, smooth and strong — at least 8 knots.

After the second attempt to notch the barograph, this time remembering to open the divebrakes as well as point the nose down, I found myself after 3 or 4 minutes at 12,000 feet, probably about to penetrate the Victor Airway which runs south of Centre Peak, but without any clear idea of my location because of the rather dense wall of cloud ahead and the small size and scarcity of clear patches below. Cloud conditions were, according to the old hands, quite unusual, about 7/10 and with little distinction between cumulus and lenticular. Turning to fly due north for a few minutes to ensure that I was clear of the airway, I eventually fell off the end (or possibly the back) of the wave at about 14,000. Unable to penetrate forward because of the cloud, which now resembled a series of blind canyons, I turned tail and ran east towards the sunlight and, I hoped, the secondary wave which could take me back up to have another attempt at the primary. The barogram was notable for its symmetry if not its amplitude! Unfortunately the secondary wave was playing hard to catch and several attempts to penetrate the rotor or to climb

in it by turning along the front end only left me quite shaken up, at the same altitude and being pushed further back over the Porcupines. A quick dash due south, aiming southwest and flying at 80 mph with periodic encounters with rotor, just got me back to the field, about an hour and a quarter after takeoff.

Several people had flights to over 20,000 feet on Sunday, but Monday was the best day of all. Graeme had a long flight to about 26,000 feet in the ASW-15 (a diamond altitude claim is pending), Chester cleared 30,000 feet and Dave Mercer (from Cold Lake), on the last flight of the camp, got to 34,000 feet after being “parked” at 28,000 feet for several minutes by Edmonton Centre. By 2:30 pm on Monday afternoon we were all packed up and ready to pull out.

That was it — Fall Cowley '95 — lots of fun, exhilarating and challenging flying, quite different from the usual spring and summer flying out over the flatlands. With any luck I'll be back next year! ❁

Flight for a Diamond

Todd Benko, Cold Lake

AS I RETIRED to bed on Sunday, the last night of the fall wave camp at Cowley, Alberta, after gazing at the Livingstone ridge where today's wave activity was quickly fading, I contemplated the ultimate goal which still lay ahead, the Diamond height gain of 5000 metres. Conditions during the camp had so far consisted of late fall thermals, early morning mountain wave and nonstandard mountain wave. I successfully completed a Gold height climb in the mountain wave earlier in the day reaching a fascinating height of 20,200 feet asl. Other pilots had easily reached similar goals today.

Four in the morning rolled around and the need to use the facilities found me outside, doing another examination of the range. There was no sign of mountain wave in the moonlit sky. The thought of Diamonds drifted out of sight, thus allowing a peaceful sleep till the alarm sounded. Six-thirty found a scuttle of activity in the camp by club members. Everyone agreed to get up and take a sunrise launch picture. Carl Cottrell, the pilot of the first launch, eagerly arose and prepped for the flight. My sleeping bag was just too comfortable; I took a less energetic approach to awakening. By sunrise everything was ready, the planes on the run-

way, the photographers posed just waiting for the right moment. Some hysteria existed concerning the best conditions for the photos. Soon, Randy was given the signal to start the towplane engine. At the precisely calculated time for maximum photographic effect, the aircraft duo departed for the mountain wave. Yes, mountain wave!

The wave was starting to take shape with a beautiful primary rotor cloud extending the full length of the Livingstone ridge. It soon took the shape of a textbook perfect wave with primary, secondary and tertiary formations. The first report back was, “released in the wave.” Soon after, Carl reported going through 17,000 at 5 knots. Wow, I thought to myself, excellent conditions that were better than my flight yesterday. An hour went by and everyone was anxious for the completion of the flight. Upon landing, Carl reported that he had reached 25,400 feet, worthy of a Diamond, until the barograph was inspected. The barograph had frozen and stopped at the top of the flight, making the entire trace unusable.

Everyone empathized with the pilot. It's disheartening knowing that someone achieves a great task and it counts for nothing, other than being chalked up to experience.

Now it was my turn. I hadn't really prepared for a flight with a diamond in mind, but since Carl's flight went so high, this might be the time. I quickly started filling the oxygen bottle, dressing for the cold temperatures and preparing a *different* barograph. While checking and rechecking everything for proper placement, my emotions were running high and tense. Another pilot suggested I could connect with the secondary wave with only a two thousand foot tow, giving me a better chance at a Diamond gain. I chose not to risk it and requested a four thousand foot tow to the primary wave. The camp had still to earn a Diamond flight, but this final day was destined to offer more than any of us imagined!

The towplane comes into position; the ground crew quickly attaches the rope and we launch with the wave in view. All is proceeding normally. The crisp morning air is not too rough, although we are climbing quicker than anticipated. We reach the intended release altitude of 8000, but are still on the leeward side of the primary rotor cloud, *not* a good position to release in a 1-26. We proceed further upwind, however I have no desire to go any higher. 8100... 8200... 8300 feet the altimeter climbs. Finally we hit some semblance of calm, smooth lift and I elect to release at 8500 feet.

I am still under the rotor cloud but know the wave is right out in front and is reachable. I poke the nose down and try to lose height to notch the barograph indicating my low point. The airspeed increases as I press onward toward the wave; then WHAM, my head hits the canopy! I proceed onward and am slammed, twisted and bashed by the turbulence.

I thank the person who invented the safety harness. Nature's forces toss the small aircraft and me like a tin can in tow behind the car of newlyweds. It's as if nature was a hockey game with a line of defencemen out in front of the net and you have to get through to score. I finally get through the defence and arrive at the goal, the primary wave. Like many pilots before me, I'm ecstatic to have reached the silky smooth primary wave and gaze in wonderment as the altimeter starts to wind skyward.

Every pilot must start at this stage with the thought, "Just how high is the elevator today?" I quickly climb through 10,000 feet in front of the massive churning primary rotor cloud. Just looking at it is as mesmerizing as looking at the flames of a roaring campfire. The power of nature is fascinating. As I ascend through 12,000 feet, climbing at 1300 feet per minute, I position my oxygen mask to ensure that everything is

working properly. The elevator just keeps taking me higher. Around 17,000 my ascent slows to 200 feet per minute. I evaluate my position and realize I am too far out in front of the wave. I turn back to the rotor cloud and have the first sight of the beautiful double lenticular clouds stacked high above the rotor. Quickly, I'm back into the wave, head for the upwind edge of the lenticular clouds, and quickly pass through my previous best altitude of 20,200 established yesterday.

Now I press onward with the Diamond in mind. All I need is another 6000 to 7000 feet. Conditions start to deteriorate upon reaching 25,000. Now comes the real work. If I'm to reach my goal, I'll have to earn it. The variometer indicates only 50 feet per minute of lift. Knowing the wave continually changes, I decide to head for the spot of

cloud that is highest and closest to me. Finally the variometer starts to move; 1 knot... 2 knots... 3 knots. It eventually turns into 5 knots lift! As I approach 26,000, I have the Diamond in sight with 4 knots lift and it seems only inches remain to be gained. Soon reaching 27,000 feet, I have my Diamond and still indicate 3 knots of lift.

I decide to take this elevator to the top floor which means calling for a clearance above 28,000 feet. I look around the cockpit and locate my little piece of paper that has the appropriate frequencies written on it. I had never bothered to pay close attention to the ATC frequencies and procedures prior to this moment. "Why bother, I'll never get that high" I had thought, proving the point that you have to prepare for everything.

Unable to change frequencies with my glove I remove it to handle the radio. Now, just how do I use the handheld radio through the oxygen mask? I try a transmission with the mask on. No way. I remove my mask and broadcast. "Edmonton Centre, this is glider X-Ray Quebec Lima." No reply. I wait a few seconds while taking a couple of breaths from the mask. I try again, still with no reply. Not wanting to risk hypoxia by having the mask off too long, I decide to change to the backup frequency. Finally making contact with the controller, he requests I change back to the primary frequency. Still no contact is made, but I can hear other aircraft communicating on frequency.

As my altimeter steadily approaches FL280, I ask any aircraft reading my transmission to act as a relay, getting no response from them either. Finally, as I level off at 28,000 I am able to re-establish contact with the controller on the backup frequency and ask to go higher. He responds, "Do you have a transponder?"

the outer limits of my
peripheral vision
seemed to be fuzzy

Decompression sickness in high altitude glider flight

Robert W Weien and Peter M Harmer
RAF IAM, Farnborough, England

Incident Report

A pilot was flying a wave cross-country and had been at high altitude for about four hours when he was suddenly attacked by a searing headache. The pain was of such ferocity that he could no longer really concentrate on flying the sailplane, but through the discomfort he thought it best to get on to the ground before something disastrous happened. During the descent the pain eased a little and he managed to fly to his home airfield.

Once on the ground the headache had gone but the pilot felt completely drained of enthusiasm for anything, except for going to bed for a long sleep. This he did, but on waking next morning he found one arm numb and devoid of any sensation. The pilot, thinking that this was getting a little serious, decided to go to his doctor to get things sorted out. The doctor diagnosed a transient ischemic attack (stroke), and immediately grounded him! It took the luckless pilot three years to convince the medical and licensing authorities that this was a wrong diagnosis and that he should be allowed to continue flying. He is flying again and representing his country at world championships.

What was the real reason for this pilot's incapacitation? All the evidence available suggests that he suffered an attack of decompression sickness. It was quite obvious that with time the pilot has totally recovered, but a course of recompression therapy on the day of the event would have ensured a speedier result and he would have been able to be flying again 48 hours after the event. It is hardly surprising that the doctor did not diagnose decompression sickness, as I doubt if he had even heard of the problem, except perhaps in association with divers rather than fliers, let alone seen a case before this one. ♦

IN MY CASUAL DISCUSSIONS with glider pilots about decompression sickness (DCS), the response ranges from mild confusion to total ignorance. In this article we will try to unravel the confusion and remedy the ignorance, but one fact to start off with is that DCS is not hypoxia or lack of oxygen. Flying at altitudes above, say, 15,000 feet is full of danger to catch the unwary and can be divided into four areas:

- 1 *Hypoxia*, a lack of oxygen to the brain.
- 2 *Trapped gas*, which expands within the body with increasing height and is only unpleasant when it gets vented. Voids (sinuses and inner ear) within the head may not equalize pressure on descent and cause pain.
- 3 *Cold*, which has been written about before but basically prepare for it by wearing many thin layers of clothing. However warm it is on the airfield, it is always cold at altitude.
- 4 *DCS*, which we covered in a paper we gave at the OSTIV Congress held at Borlänge, Sweden in 1993 and is reproduced here from *Technical Soaring*.

High altitude glider operations possess the potential for causing DCS as a consequence of the altitude reached and the time spent at those altitudes. The risk, and therefore the incidence, should be higher in glider pilots than in military pilots, because of the general lack of preventative measures taken in soaring. This paper discusses DCS in general, the risk in glider operations, and briefly describes a study which attempted to establish the incidence of DCS in the gliding community.

DCS is the medical condition which occurs as a result of the reduction in ambient barometric pressure to such a degree that inert gas dissolved in the blood and tissues comes out of solution and forms bubbles. It is most commonly associated with diving but also occurs in the aviation environment.

Physiology of DCS The fluids in the body contain inert gases, in quantities consistent with Henry's Law. This states that the amount of gas that will dissolve in a liquid at a given temperature is directly proportional to the partial pressure of that gas over the liquid. All gases are absorbed and eliminated according to this law, but most gases are either metabolically active or

have a partial pressure too low to be of significance. The inert gas of primary interest in DCS is nitrogen, since it constitutes 79% of the atmosphere. It is not metabolized, thus it is absorbed and eliminated from the tissues and body fluids passively. The body tends towards saturation with nitrogen, so a diver absorbs additional nitrogen when breathing underwater under high pressure. When the diver returns to sea level pressures, the excess nitrogen must be eliminated.

Nitrogen is absorbed and eliminated through the lungs, and further dissemination through the circulatory system. Different tissues have different rates of absorption and elimination, complicating the issue of predicting total body nitrogen levels. This area has been extensively researched, primarily in the diving environment, as part of dive decompression table development.

When a body has been at sea level for a prolonged period (days), it is saturated with nitrogen. An ascent to higher altitude (lower pressure) results in supersaturation, and the body begins to off-gas the excess nitrogen. The degree of supersaturation necessary for bubbles to form is defined by the "critical supersaturation ratio":

$$CSR = P_{N_2} / P_B$$

in which P_{N_2} is the partial pressure of nitrogen at the equilibrated altitude, and P_B is the total barometric pressure at the altitude of interest. In aviation we are rarely concerned with mixed gases (used in diving), so only air (79% nitrogen, 20.9% oxygen) is considered here. For air the CSR is 1.58.

When a reduction in pressure is made which exceeds this level then DCS becomes possible. For those equilibrated to sea level pressures (760 mmHg), this occurs at about 18,500 feet (*20,600 to 21,400 feet for persons living in Alberta. Tony*). The CSR threshold is based on the assumption that the linear ascent threshold well known in the diving community extends into the altitude realm. Recent USA studies indicate that the altitude threshold may actually be considerably lower. Nonetheless, 18,500 feet can be used as a rule of thumb in describing the potential threshold of onset.

Clinical features of DCS Once bubbles form, they can have a variety of effects ranging from simple joint pain through to death. The degree of symptoms and their location depend on the number of bubbles and where they travel after they have formed. Bubbles cause symptoms through two basic mechanisms, mechanical effects and surface activity effects.

Mechanical effects are those which occur as a result of the physical presence of the bubble. These include obstruction of blood vessels and tissue distortion or

disruption. When a vessel is obstructed the flow of blood downstream in that vessel is restricted or eliminated, resulting in symptoms of tissue hypoxia. Tissue changes can be caused by the expansion of gas bubbles through the effect of Boyle's Law which states that as ambient pressure is reduced, a bubble will expand, and exert force on the surrounding tissues.

Surface activity effects are those resulting from the body's active response to a foreign body. The surface of a bubble is viewed as a foreign body and several systems respond to it as such, including the complement cascade and platelets.

Common presentations of altitude DCS include joint pains (called the "bends"), skin symptoms (often itching), neurologic symptoms (headaches, numbness, or paralysis) and respiratory symptoms (shortness of breath, substantial chest pains). A number of factors which influence the onset of DCS have been noted. These include:

Exercise Physical exercise, especially during or in the hours immediately after an altitude exposure, increases the likelihood of DCS.

Cold Low temperatures increase the risk of DCS, probably due to vasoconstriction resulting in poor perfusion of peripheral areas (poor circulation). This, in turn, leads to incomplete clearing of nitrogen from the poorly perfused tissues.

Age Increasing age increases risk.

Obesity Fat is a long "half-time" tissue, that is, it absorbs and eliminates nitrogen over a much longer time than "fast" tissues, such as blood. This leads to localized areas of increased off-gassing gradient where bubbles can form.

Dehydration This leads to reduced circulating blood volume, and poor perfusion, and can result in incomplete clearing of excess nitrogen.

Physical injury Inflammation associated with an injury is a common site for DCS symptoms.

Flying after diving If one has participated in diving activities and absorbed extra nitrogen, this increases the total need for nitrogen elimination and lowers the altitude at which the CSR will be exceeded.

Gender Females are at significantly higher risk of DCS than males.

The onset of symptoms is usually rapid. Approximately half the cases occur while at altitude or in the first hour after return to ground level in altitude chamber runs. The initial symptom occurs within 12 hours in 86% of cases and within 24 hours in 97%. DCS responds well to correct treatment. Recompression therapy in a hyperbaric (diving) chamber is the standard treatment: in a recent ten year review of the USAF's experience with altitude DCS, 98.5% had complete resolution. In the

absence of a hyperbaric chamber, or until a patient can be transported to one, 100% oxygen should be breathed (this treatment is not as effective, however).

Prevention of DCS The rate of DCS can be reduced through preventative measures. If 100% oxygen is breathed then nitrogen is cleared from the system in a process termed denitrogenation. This is somewhat of a misnomer, however, since denitrogenation results only in partial elimination of nitrogen from the body. The longer the course of denitrogenation, the higher the threshold for DCS. Symptoms are also less likely to be severe. The Royal Air Force uses a 30 minute denitrogenation schedule before ascent for altitude training above 30,000 feet.

How big a problem is DCS in aviation? Estimates of incidence are usually made from records of military altitude chamber training. A number of these have been published in recent years. The range is from approximately 0.5 to 3 cases per 1000 exposures.

Potential for DCS in gliding The potential for DCS in high altitude glider operations is great, for a number of reasons:

- the altitudes reached are high enough for DCS to occur. Flights above 25,000 feet are common.
- no preventative measures are taken against DCS. Wave pilots typically do not don their oxygen masks until at 10,000 feet or above.
- oxygen systems in gliders are not standardized, and so may not provide 100% oxygen. Denitrogenation may not occur, even when the mask is in place.
- there is no method to alert pilots with predisposing factors to allow them to reduce their risk.

The incidence of DCS in high altitude glider operations would therefore be expected to be higher than that experienced in military aviation. We have not been able to find any reported cases of DCS among glider pilots in the medical literature, or in gliding publications, or via informal inquiries at several gliding sites known for wave prior to writing this paper. But subsequently, several cases, including the one heading this article, have come to our attention although not always directly from the pilot concerned.

DCS incidence study The Centre for Human Sciences of the Defence Research Agency (formerly the RAF Institute of Aviation Medicine) at Farnborough began a study to establish the incidence of DCS in glider pilots during the wave season 1993–1994, comprising a questionnaire based survey of pilots returning from wave flights.

The two possible outcomes could have shown:

- 1 The anecdotal evidence is correct and DCS occurs

much less frequently in the gliding population than in military aviation. This would be a surprising result, and would require further investigation of glider flight profiles to determine the reason. If true, then lessons learned could be applied to military aviation.

- 2 Glider pilots have an incidence of DCS as high or higher than military experience would suggest. This is the most likely outcome, and could be used as a basis for communicating DCS prevention techniques to wave flying pilots in an effort to enhance safety.

Conclusion DCS is a likely side effect of high altitude glider operations, but is a risk which can be minimized through the use of proper preventative techniques. There was a study (1993–94) to determine the size of the DCS problem in gliding but unfortunately, for many and varied reasons, it floundered fairly early on and long before any statistically correct sample had been reached. The idea behind this study was *not* to gain evidence to put any sort of restriction on altitude flying. I enjoy it as much as anyone, but to gain an insight into a previously unmentioned problem to enhance the safety of our sport.

However, what I would now like to try is for pilots having read this article who think they could have suffered from DCS, to let me know — any personal details will be kept confidential. I believe there are many pilots who have suffered from mild DCS and have just thought that the joint pain was due to the cold, cramped cockpit and the headache to a heavy session the night before. Mild symptoms will invariably disappear on descent and will possibly be forgotten in the wild storytelling that evening.

Could anyone who has had any strange symptoms or sensations, which cannot truly be put down to hypoxia or anxiety, during or after a flight to above 10,000 feet please write giving details to:

P. Harmer, Aeromedicine and Neurosciences,
Centre for Human Sciences, Defence Research Agency,
Farnborough, Hants GU14 6TD

What to do at Cowley

There have been no reported cases of DCS in pilots flying the wave at Cowley. Alberta pilots being acclimated to a living altitude of 2–3000 feet asl is a positive factor; however, as the conclusion suggests, mild cases of DCS may have occurred which were not realized as being such.

Probably the best on-site preventative, especially for pilots who are contemplating climbs well above 25,000 feet for record or trophy attempts would be for them to be strapped in and prebreathing 100% oxygen for up to a half hour prior to launch.

Club news

Cold Lake Soaring Club

This year's wave camp was an outstanding success. Six of our members attained Gold or Diamond climbs, two setting records! Unfortunately for Carl Cottrell, his climb will only qualify as a practise Diamond — apparently he was breathing too hard and his barograph froze up, interrupting the trace. We had a great time in salubrious weather. Don't miss it next year!

The camp was made all the more enjoyable by the fine hospitality extended to us by the Wilson clan at Blairmore on the Saturday night. They opened their homes and hot tubs to the motley Cold Lake crew who expressed their thanks by providing detailed appreciative evaluations of the Wilson's fine basement brew. This is the kind of hospitality that makes camp life as much fun as flying itself.

The quest for the *Holy Blanik* continues apace to replace our Bergfalke as the mainstay of our basic training fleet. The most promising leads have so far turned out to be unsuitable or already sold. Undaunted, we hope to find a Blanik soon or perhaps a used Krosno that falls within our budget.

Our club has switched to hibernation and maintenance mode. We will install a tailwheel on the Twin Astir, repair the 1-26 canopy we crocheted together at Cowley, and repaint the Scout. Our next major flying event will be our traditional "Polar Bear Soar" on New Year's Day using the 1-26 sporting the sport canopy! Swimming trunks are not required — bring your warmest toque.

Randy Blackwell

Cu Nim Gliding Club

The final two months of the season were kind of the Dickens — they were "the best of times, the worst of times". In the "good times" column, all three members of "Team Keen" (Al Hoar, Gord Taciuk & Keath Jorgensen) completed their licence check flights on Labour Day, and the following weekend Matt Roden went solo. Then came *the Black Weekend*. On Saturday, we blew out the canopy on our new Jantar, Funny Girl, when it popped open on landing. On Sunday we wrote off one of our Blaniks. The spoilers inadvertently opened on takeoff, and when the tow pilot gave the rudder wag, the glider pilot released by mistake and ended up in a stall/spin from low height. The good news was that the pilot suffered only minor cuts and bruises. The first change to result from this accident was the decision to withdraw Cu Nim's participation in this year's fall Wave Camp. As we stayed home to lick our wounds, October gave us the salve of lift and became our second best month of soaring. Both Thanksgiving and the following weekend brought excellent wave, and nearly every day had soarable thermals.

By Thanksgiving, Team Keen had successfully transitioned into our remaining Jantar, and Gord and Al each logged very nice wave flights. Rick Steedman snagged his C badge with an hour and a half thermal flight on Oct 21, and on the next day:

- Tomas Florian completed his licence check flights in time for his 16th birthday.
- Paul Chalifour did a soaring first flight in VES-1 (the PIK-20 fuselage/HP-18 winged homebuilt) which he had newly purchased from Jerry Vesely, and declared it to be a fine sailplane.
- and Keath Jorgensen finally got the last laugh as I led him off on his first cross-country, where we played in 6 knot thermals and chased along at 80 knots under miles and miles of cloud street with never a turn. I don't think Keath came down until the snow fell a week later! (*Keath was flying in actual thermals! He couldn't stop babbling on the radio. You have to understand that Keath had flown bags of Blanik flights over a couple of seasons, but was infamous for having thermals avoid him at all cost. He gets full marks for superhuman persistence, and he got the laughter and applause on landing for finally discovering what the sport is all about. Tony*)

We did get in one more day, but it only served to get Rick started and Matt stranded on their licence check flights. Still, at the end, I think we were back to the best of times.

On November 17th, Cu Nim hosted a very large turnout to its annual Christmas party, which was once again held in the summit Teahouse at Canada Olympic Park — where the sparkling view, good food and warm friends made for a delightful evening. With great humour and manic impressions, club president and MC Kerry Stevenson ("Quiet Kerry") oversaw the following awards:

The *John McGregor Memorial Award* — member of the year, went to a very deserving Barry Bradley for all his shovel and hammer work at both Black Diamond and Cowley.

The *Coyote Plaque* — for Towpilot of the Year, went to Mike Crowe, who flew more than 130 tows, instructed, and competently filled the roles of both Cu Nim and ASC chief towpilot. Honourable mentions went to Lyn Michaud, Ted Mani and Dave Morgan.

The *Fledgling Award* — for Student(s) of the Year, went to "Team Keen" — Al Hoar, Gord Taciuk and Keath Jorgensen. Between them they logged over 300 flights to each progress through solo, licence and transition into the Jantar, all in the course of one season. It was a remarkable achievement!

Instructor of the Year Trophy — went to Terry Southwood, who as CFI, notched 257 flights over the year (mind you, 18 were in his own glider!).

Calgary Brewery Trophy — was awarded to Tony Burton as the champion of the Provincial Contest, after a come-from-behind win over Rod Crutcher.

Best Flight of the Year – has recently been tilted towards significant flights that reflect a personal best, and Kurt Edwards' 376 kilometre triangle was certainly all of that. Honourable mentions go to Tony Burton (507 kilometres) and Rod Crutcher (308 kilometres).

The *Silver Speaker Award* – for untoward use of the airwaves went unclaimed this year, probably due to the hard work of our authorized DoC rep, Dave Morgan.

The *"I Wish I Had a Motorglider" Award* – went to Keath Jorgensen, who was long on complaints about short flights – however, the laughter that always accompanied the complaining leaves us suspicious.

Happy New Year everyone.

Terry Southwood

Grande Prairie Soaring Society

GPSS completed a safe and successful season. We saw 73.1 hours on the Blanik, up from approximately 40 hours last year. Lester Oilund had his Phoebus out every chance he could which was not often enough. Our membership doubled, from five in '94 to ten in '95. We took on four new students, saw last year's lone student Darcy pass his flight test and written exam. Darcy went on this year to carry passengers and get checked out in the backseat of the Blanik.

Our year started on an evening before the Easter long weekend with an open house to get information out to interested people in the community. We saw folks from as far away as Peace River and Fort St. John attend (both two hours away). Jack Kalthoff from Fort St. John signed up and even moved to Grande Prairie half way through the year. He claims the move was for business reasons, but we all know better. After getting people interested in soaring, our club got off to a slow start, we still had a lot of work to do on our Blanik trailer before we could get the aircraft out of its winter storage. We also had to put the finishing touches on our winch, it got shot (yeah, real bullets), full of holes by a minor late last year. Jordie Carlson, the club AME gave the Blanik a clean bill of health and our first flight was 9 June. We operated out of the Beaverlodge airport again this year.

With our new trailer roadworthy, Walter Mueller, Dave Olsen, Diane Knoblauch, Carrie Death and myself made our way to the ASC Cowley summer camp where some of us got a taste of the wave and we all experienced terrific flights. Walter managed to launch one evening and stay up for over 2 hours while the fibreglass ships were having to land. Dave and Diane had a 2.5 hour flight immediately after their site check, with Diane the student doing most of the flying.

After our Cowley trip Walter, always looking for ways to improve things, got right back to work on the trailer and redesigned the wing and fuselage dollies to make them easier to use. He also found the time to build a club greenhouse

(aka outhouse). It has been a hit, making everyone more comfortable when they're on the field for the whole day.

Jordie Carlson looked inside the wings of the club K8, which has been mothballed for a number of years as it was suspected the wing spar or ribs may have deteriorated. Jordie put eight inspection holes in each wing and we were all relieved to find that the fabric was still in excellent shape and all the wood and glue inside shows only minimal signs of age. It will receive a thorough annual inspection early next spring and will be in the air immediately after that.

One student Karl Soellig got to solo status this October. This solo was not without its hardships. Karl first learned the art of winch operating. And it's quite an art, isn't it Karl? This year's winter project is looking like a new trailer for the K8. (Walter is worried he'll have nothing to do this winter – yeah, right.)

Dave is running the students through ground school on Monday nights, now that the snow is too deep to launch the Blanik. We are expecting a few students to write exams before the spring season starts up.

Special thanks go out to our ground crew and supporters for the year which include (of course) the spouses, Tammie Diesel our chief propaganda officer, whose introduction to soaring was a 45 minute flight with Walter, air cadets Shaughn Peters, Ryan Powell, and Simon Tattrie from Grande Prairie, and Ryan Sales from High Prairie (another two hour drive away) and other regulars, Jean Trarback, Lisa Puckett, and Lynette Hrychiw.

The end of the 1995 season was celebrated at Karl's in early December. A great potluck supper was held with lots of pictures and videos from the year, just to ensure that the lies didn't get too big.

Bryan Lynch

Edmonton Soaring Club

ESC did well this year. Our membership had been on a downward spiral from 82 members in 1991 to 47 members in 1994. This year we had three publicized events: an open house in town, an open house at the field, and the SAC 50th anniversary event, all of which contributed greatly to our increase in membership, which currently stands at 66, up 19 from last year.

Our most successful event by far was the SAC 50th anniversary event – an ESC alumni reunion and open house. With some good advertising and a reduced rate fam flight, we had hundreds of visitors and flew 88 fam flights that day from 4:30 am to 10:20 pm – only about five minutes short of the legal daylight that day.

Over the winter this year we are taking something of a break given the amount of maintenance done last year. Our first Pawnee (FAVL) is having its airframe and fabric completely redone this winter.

||||► next page

The year end banquet saw the following awards presented:

The Jackson Trophy – for best multiplace flight went to Jack Towers and Wayne Watts for a flight of 2:11 on June 1 in the Puchacz.

The *Senior Ladder* – for most XC distance for pilot with over 100 hours went to Buzz Burwash, 1774 km.

Executive Member, and Member of the Year – both awarded to Al Sunley. In his capacity as fleet manager, Al spend hundreds of hours over the 94/95 winter on maintenance.

Tow Pilot – for the most active towpilot, went to Elaine Friesen with 235 tows. Elaine returned from Dawson Creek where she was trained as an AME. Living in Chipman, she was readily available as a towpilot. She has since moved to Airdrie, so Cu Nim had better make her welcome!

Instructor of the Year – presented to Dick Dejong who put in over 200 flights and a lot of time instructing and flying fam flights. He was also respected by the students, and was even recognized by a local TV station with an award.

Student of the Year – to Jim Clark, an enthusiastic student, one of the first to join this year. Jim got right after his training, quickly progressing to the solo stage. He showed great enthusiasm and spent a lot of his time at the airfield.

Special Presentation – Jack Despres and Monika Setter

Jack and Monika were recognized for the many years they acted as club treasurers in a job nobody else wanted. Over the time they were treasurers, the club retired all of its long term debentures, paid off all debts, and squirrelled away a tidy sum which will hopefully get the club on its way towards upgrading the fleet.

Life Member – The highest honour that ESC can give to a member was given to Al Sunley. It is recognition of lengthy service to the club and our sport, above and beyond that normally expected of a member. This honour is rarely bestowed. In the 38 year history of the club, only five others have been awarded. Al unselfishly has given his time to see that the club is a better place for the rest of us, often at the expense of his own flying. In fact, he is often the source of ribbing for the amount of time and effort he spends not flying. He has been an instructor, held various executive positions including Field and Fleet Manager, and spent more time than anyone else by far on fleet maintenance.

Outside the club, he served ASC as vice-president for many years. At a national level, Al has conducted instructor training camps, acted as contest director for many provincial and Canadian national soaring contests, was the Alberta Zone Director to SAC, and for two years served as the President of the Soaring Association of Canada.

John Broomhall

Flight for a Diamond

from page 6

Pilots in aircraft at this altitude usually have engines, power, comfortable heated cockpits and transponders on board. My little cockpit comprises a single seat, no heat, no power, no motor, bottled oxygen, a handheld radio and enough clothing to venture out into a -40 degree blizzard. I reply, "Negative". A somewhat pregnant pause occurs, undoubtedly due to a miniconference developing around the radar scopes. Finally the controller returns and clears me to no higher than flight level 330. I read back my clearance, "No higher than flight level 330", and I put the radio down.

It is only now that I realize something has changed. The sound of the air over and around the canopy appears different. The sharpness of the hissing is almost gone and is getting more muffled. I quickly realize that hypoxia might be setting in. I put on my oxygen mask and select 100% oxygen. I also realize that the outer limits of my peripheral vision seemed to be fuzzy, however this clears up within thirty seconds on oxygen. A couple of minutes later my hearing returns to normal and I select the oxygen to normal operation. All the pauses with the controller caused me to lose track of how long I was off the mask. When I tighten

the mask, I find the ear muffs in the cloth helmet prevent me from clearly hearing anything on the radio. Later proving to be a less than ideal decision, I elect to turn the radio off in case the battery is getting weak. I had not remembered that I must remain in radio contact with the controller at all times above FL280.

I put the glove on my freezing hand and get back into the wave. The lift isn't as strong as when I levelled off, and I eventually top out at 28,700 feet. I search to find more rising air, but keep sinking. At 28,200 feet, satisfied with my attempt, I conclude I had reached the limit. I inform the controller as I drop below flight level 280. The controller questions if I heard his calls. I am sharply chastised after I tell him I had turned the radio off. I sheepishly apologize for my sin and proceed with my descent.

Finally landing back at the field, I was exhilarated! I was greeted by fellow pilots with eager interest in my flight details. The question remained, does it count? I didn't want to look. Tony gently removed the barograph from the rear of the aircraft, and with little delay, reported it was sound. The trace was visible and good. A Diamond flight has been recorded at the fall wave camp! Only as I sat back later, did I slowly realize what I had endured, learned and achieved. ☸

The Parable of Joe

anon.

*Let us consider the ground crew,
Too often forgotten by all.
They get to do time out on every flight line
But never to carry the ball.*

*Joe is a chap who is needed,
A problem that won't go away,
But remember of course that the knight on his horse
Would tell you the same in his day.*

*He'd say he was lacking in armour,
And his new iron pants weren't quite right,
And did he show pity to the overworked smithy?
You can't expect that from a knight!*

*"I must have a bigger brick privy,
Ye drawbridge is terribly short,
And get me a steed with a little more speed,
My charges must never abort!"*

*"Don't tell me thee can't find the money,
Those problems don't move me at all.
Why I've got a notion to block thy promotion –
Get snappin' and get on ye ball!"*

*So the vassals and serfs got to sweating
And bending their backs a bit more,
'Cause it wasn't the rage in the chivalrous age
To ask the lord why or what for.*

*But suddenly - horror of horrors!
The knight was knocked from his mount,
Pierced to the marrow by a little ol' arrow,
And down went m'lord for the count.*

*There lay the lord and the master,
Flat on his back on the field,
And he yelled and he howled that he must have been fouled,
And he swore he'd remount ere he'd yield.*

*Well, sure enough, centuries later,
A couple of vassals named Wright
Glued a few things to a couple of wings,
And handed it all to the knight.*

*Up into the cockpit he vaulted
And tried on the saddle for size.
With throttle full bore and a rush and a roar,
He tore a few holes in the skies.*

*But the Joes were back where they started,
And they put down their tools with a sigh,
'Cause they knew sure as fate when he landed the crate,
They'd have to perform the DI!*

*"Build me another big hangar,
I need one more mile to take off.
This aircraft won't do, I must have Mach 2.
Attend to it will you, old toff?"*

*So the chargers grew bigger and faster,
They belched out their fire and smoke.
To the knight it was pleasant - but not to the peasant,
Joe never could savour the joke.*

*Then up and spoke an old boffin,
He of the rapid slide rule,
"I have in my pocket the plans for a rocket,
I'm telling you, knight, it's real cool!"*

*"It's almost as big as a mountain,
With cockpits and saddles galore."
(Now surely by rights we should fill it with knights,
And we shall be bothered no more!)*

*Now after all was assembled
And the brass gathered 'round for a look,
You could tell by their sighs and the gleam in their eyes,
They were ready to swallow the hook.*

*Into the rocket they clambered,
Each to his own private place,
And eager as beavers they played with the levers
'Til the monster roared off into space! ...*

*Thus the Joes did the old world inherit,
Mountains and river and plain,
While the knights in the sky go hurtling by
As they circle the sun once again.*

Odds & Ends

Tony Burton

Letter from Lotusland Grant Humphrey recently wrote a letter to Cold Lake from his new whale watching job in the Comox tower. It says it all.

“Hello feathered friends, Grant here, writing from an island in the Pacific. Things are good, lots to do, but one major thing is missing – quality soaring! Bear with me as I explain.

Soon after I learned to soar, I came to understand the personal challenges and freedoms that soaring offered. As my experience broadened, I realized that soaring is a sport filled with the camaraderie and professionalism of people sharing a common passion. In the hustle and bustle of life, one can tend to lose touch with the passions of life that make you feel alive. If you find that soaring gives you this, don't lose touch with it, and realize that once you leave Cold Lake, you leave behind a soaring club that offers golden opportunities. Excellent people, highly experienced professionals, excellent equipment and facilities, and great local flying all abound there. But most of all, there is the opportunity twice a year to take a club sailplane and experience mountain soaring with a great bunch of people.

What I'm saying is, use this opportunity to the fullest and invite your friends to do the same and carry on the tradition. Remember: man does not cease to play because he grows old, he grows old because he ceases to play. Now go make some vortices!”

Sports politics Marty Slater and I attended a two day forum in Edmonton 24–25 November, held by the Alberta Sport, Parks, Recreation and Wildlife Foundation (hereinafter called “the Foundation”) with other sports associations in the province. The purpose of the forum was to give sports associations an opportunity to comment on the provincial report and recommendations of the Lotteries Review Committee, and on the upcoming reorganization and recommendations for marketing the Foundation (which can barely be pronounced right now, even by its directors).

The government seems determined to amalgamate many lottery funded foundations into a “super-foundation” including arts & culture, wellness, wildlife, sport, recreation, etc. Our concern was that the mandate and interests of these foundations were quite different, and forum attendees wanted assurances that the structure of a new foundation would permit sport expertise to be

on its Board, and that funding would not be affected. A big question was, why, if lottery revenues were exploding to half a billion dollars annually, the \$50 million budget of the Foundation was being cut by \$3 million? This cut is resulting in a 10% drop in funding to ASC to \$32,725 for 1996 with a further 5% in 1997.

No transponder needed After both Dave Mercer and Todd Benko of Cold Lake were asked by ATC if they had transponders on board when they requested climbs above FL280 at the fall wave camp, a flurry of post-camp correspondence and calls ensued between ASC and ATC. We said no. They couldn't find any documentation to prove yes, even though the Livingstone Block Agreement makes no mention of it. (That's because of the extensive negotiations we had back in 1973 over the definition and use of the Block.)

Finally, just to prove that pack-ratting paper is occasionally useful, Ursula went back into ASC's copies of the correspondence of the time and after a short search was able to fax back to ATC a copy of their own memo between Western Region and Ottawa which let sailplanes off the transponder hook in the Livingstone airspace. A little history goes a long way! ☘

book review – Tony Burton

Leaning on the Wind – under the spell of the great Chinook, by Sid Marty. Harper Collins, 317 pp, \$27

Naturalists often manage to carve out what to urban dwellers, living cheek-by-jowl in crowded cities, seem like virtual paradises. And if they can write with style and verve, we who must struggle with rush hour can at least taste vicariously these wild Valhallas.

Sid Marty is a one-time songwriter, an accomplished poet, a former park warden and an outspoken environmentalist. He is not interested so much in the microcosm of his natural environment as the wide sweep of his fantastic corner of the world, which lies “between two worlds – mountain and prairie – and composed of the two it makes a smaller world of its own.” It's called Aspen Valley, smack in the middle of the Chinook belt and under the Livingstone Range north of Lundbreck. Where Marty lives, 100 km/h winds frequently howl throughout November and February, and dominate the place the rest of the year.

His book is an episodic account of the geological, political, personal, and cowboy culture history of the area, and weaving all the elements together is the overriding effect of the Chinook winds on everything.

Sid begins with a description of the geological formation of southern Alberta, then moves on to the region's human history. While he writes beautifully and often humorously, Sid really hits his stride with his sad account of how his American ancestors from Minnesota fell for the Canadian government's outrageous propaganda of a wheat heaven and a quarter section free to homestead, and moved into the semi-desert that is called the Palliser Triangle to a parcel of dust that is now a part of CFB Suffield.

After a long stint as a warden in Banff National Park he, his wife Myrna and two sons moved into an old prairie schoolhouse near Fort Macleod. They lasted

there a year and fled back to the mountains. Thank goodness they did — his account of building their life on their "ranchette" in Aspen Valley is fascinating.

Of particular interest to soaring pilots is the chapter recounting our use of the mountain winds and Bruce Hea's record wave flight and of a ride Sid had with Rob Young at the Cowley Summer Camp. Although a devout non-flyer, he was still sympathetic to why we do it, and it is interesting to see soaring from fresh eyes.

Leaning on the Wind is an absorbing narrative, vividly written. It was short-listed for this year's Governor-General's literary award for nonfiction. ☘

ASC Annual General Meeting & awards luncheon

27 January 1996



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- ◆ *Planning meeting* 1000 sharp
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- ◆ *Awards luncheon* 1200
luncheon ticket - \$8.50
- ◆ *Presentation of provincial honours* 1300
- ◆ *Annual General Meeting* 1330
 - *approval of minutes of 1995 AGM
(printed in the ASCent spring issue)*
 - *1995 executive & committee reports*
 - *1995 financial report*
 - *1996 budget presentation*
 - *old & new business, motions*
 - *election of officers*

Meeting close about 1500

*The one-year term for the Treasurer will expire.
Nominations for President, Secretary and Treasurer
prior to the AGM and from the floor are invited.*

nominees to date:

Treasurer Denis Bergeron & Julie Lauzier

Call Ursula at 625-4563 for questions & info

return address
Box 1916, Claresholm, AB TOL 0T0