

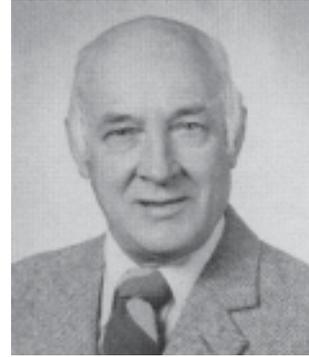
free flight • vol libre

1/88
Feb/Mar



POTPOURRI

Why should you support a championship team? Surely one can't deny that competition is the life blood of any skillful, demanding sport. You and I either fly or look forward to flying in high performance gliders whose phenomenal increase in performance over the past 30 years can be attributed to a large extent to competition demands. The latest sailplanes are said to be "of technical and aesthetic excellence which is perhaps without peer in any branch of aviation". In addition, gradual improvement in instruments and soaring techniques leading to more masterful use of the elements come from competition pilots earnestly honing their skills and techniques to gain an edge over their competitors. There is continuous feedback from competition pilots to glider designers and manufacturers on the performance of their aircraft; and fortunately, some of the designers and manufacturers are top competition pilots. The manufacturers are all relatively small, and to be competitive they continually redesign their craft to aim for the top competition placings. This close-knit society of researcher, pilot, designer, and manufacturer has combined, by design or happenstance, to produce these quantum jumps in structural design and performance. They have completely outstripped the light aircraft field and led the way to many material and structural innovations. To repeat, we are able to fly these incredible machines because of the demands of competition soaring. Thus, it behooves us to consistently, vigorously, and happily support competition flying.



This is not to say that we should all be entering competitions. Some of us simply enjoy flying around the pea patch and enjoying the never-solved mysteries of the skies. More of us compete than is recognized though; for any A, B, C badge or Silver, Gold, or Diamond badge attempt is a competition to gain the skills required to meet the laid down criteria for a particular badge. However, no matter what kind of flying you do, support is needed to send competitors to various meets. The last team we sent to the World Gliding Championships in Australia in 1987 had some financial support from members, but really very little. The pilots and crew members of the team spent \$74,000 of their own money, and other SAC members contributed approximately \$7,000 (of which 50% was from one club). Not a very good show and probably not representative of the generosity of our members who, if individually canvassed, would be much more forthcoming.

By the time this issue of *free flight* is out, plans for the AGM will be complete. Amongst other things a motion will be proposed to approve the introduction of a Bronze badge which will require a glider licence, two hour duration flight, 50 solo flights, and an altitude gain of 1000 m. Some will say we need an additional badge at the other end of the spectrum, why bother with one at the lower level? In many small clubs it is most difficult to release a glider (it may well be their only glider) for a five hour duration flight or for a cross-country jaunt, thus badge flying is seldom done. This Bronze badge will fill this vacancy and be welcomed in small clubs — which are in the majority — so please support it, even if by proxy.

The latter reference to proxy votes raises an issue which is quite startling, and that is the tendency to send a proxy to an AGM which confines the proxy carrier to voting a particular way no matter what is raised in explanation at the meeting. The poor proxy voter often rises in anguish and bleats, "I don't agree with voting against this, but my instructions are to vote 'No'". This is called "voting in stone" and to me, reflects those who support this type of proxy. Surely a proxy voter should be told, that with the present evidence and opinions here, we want a No vote, but you are free to use your head if different views expressed show such a vote is unreasonable. Obviously, this also applies to someone who is told to vote Yes.

Safety is the word for 1988. How can you turn our complacent attitudes around so we all are thoroughly immersed in the determination to improve our flying proficiency and self-discipline? No club should be without a "No exceptions" pilot's annual checkride, done by well-qualified and respected pilots, where the game is to find weak points and discuss and correct them. An excellent start to the flying year is the CFI Safety meeting to be held during the AGM where a comprehensive review by well-qualified speakers will present safety problems and, with the CFIs, seek solutions. It will be a stimulating involvement by all attending who hopefully will come away with the determination to improve our safety record. All clubs should give their CFIs full support before and after the symposium. In addition, if at all possible, insist that your instructors, especially the new ones, be encouraged to attend the SAC instructors course so that our standard of instruction is raised. Why not offer an incentive of half the cost of attending the course or something similar.

Fly safely and make safety a way of life.

Gordon Bruce

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1/88 Feb-Mar

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Le journal de l'Association Canadienne de Vol à Voile

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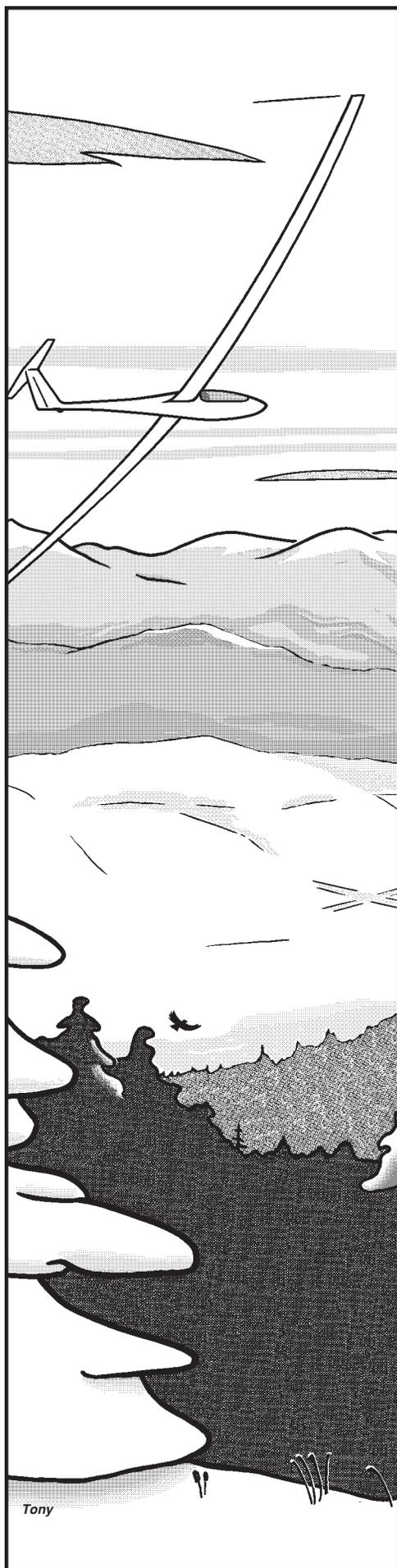
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ISSN 0827 – 2557

Cover

A beautiful little lennie in the late afternoon. This photo was taken by John Firth on 26 October 1985 about 15 kilometres south of Lake Placid, New York. The crest of the cloud was at about 10,000 feet, and John's log stated that these thin lennies were sparsely scattered over the whole region.



COMPETITION OBJECTIVES

This unofficial paper/opinion was submitted by request to a special CIVV committee established to study the current philosophy and state of world soaring competition.

Jim Oke

The underlying purpose of competition in any sport seems to be to identify the more successful practitioners of the sport in order that they may be suitably recognized. The desire for recognition of one's skills and abilities is a healthy human instinct which has evolved through the ages and needs little further discussion. From a collective viewpoint, it is useful for a sporting group to identify those who possess superior techniques, methods, or equipment so that these factors can be investigated, understood, and publicized in order to advance the sport as a whole. To the individual, recognition in some sports may bring with it considerable attention from the public at large and thus significant material benefits (as seen by hockey stars in Canada and soccer stars in Europe). The former aspect seems vastly more important to gliding than the latter. The development of modern composite construction sailplanes, instrument systems, and flying techniques under the incentive of success in competition has clearly done much to advance the pleasure and challenge of recreational gliding through the development of better equipment and flying techniques. Few glider pilots have won much public fame or fortune, however!

The notion of competitive gliding is probably based on the assumption of a positive correlation existing between a given flight performance and the possession of certain qualities that glider pilots would identify as desirable. Agreement on what qualities make a good pilot is probably necessary before a competition test can be designed. A corollary that follows is that such qualities are likely to be possessed in the greatest quantity by the "best" pilot. The following areas might be considered to be a partial list of the qualities that ought to be tested in a gliding competition:

- aircraft handling skills
- technical or scientific knowledge of aerodynamics and meteorology
- the ability to apply such knowledge in practical situations
- general airmanship (flight planning, navigation and map-reading, risk management)
- mental and physical stamina (the ability to exercise the above skills for extended periods of time)

Certain qualities are clearly held to be undesirable traits in a glider pilot and should be discouraged where possible; for instance, a willingness to take foolish and unnecessary risks should be discouraged and not made an asset in competition. Also qualities such as physical stamina must be tested carefully to avoid the creation of possibly dangerous situations. It is unlikely that all qualities are likely to be equal in importance and some weighting factor or priority must be attached to each quality to determine its place in the competition test.

When a list of qualities is decided upon, the competition task (or tasks) should then be designed to test these qualities in a manner that is independent of the sailplane being flown and the weather encountered during a competition. Currently the former requirement is addressed by the definition of various sailplane classes within which sailplane performance is assumed to be equal. Weather effects are theoretically removed by scoring systems and multi-day contests that should cause weather effects to average out for all competitors. Another point is that gliding is essentially a solo sport and does not normally involve interaction with other competitors in a direct manner (the contrast being the same as that between golf and tennis). In practice, all competitors fly in the same airspace at the same time, thus some interaction is inevitable. The competition should be arranged to minimize the effects of interaction on individual competitors as much as possible.

Implicit in any discussion of gliding is the concept of efficient use of energy drawn from the atmosphere. For competition purposes, all pilots should be presumed to have access to equal amounts of energy present in the atmosphere with the winning or most successful pilot being the one who can translate this energy into either the longest or fastest glider flight.



The SOARING ASSOCIATION OF CANADA

is a non-profit organization of enthusiasts who seek to foster and promote all phases of gliding and soaring on a national and international basis. The ASSOCIATION is a member of the Aero Club of Canada (ACC), the Canadian national aero club which represents Canada in the Fédération Aéronautique Internationale (FAI, the world sport aviation governing body composed of national aero clubs). The ACC delegates to SAC the supervision of FAI related soaring activities such as competition sanctions, issuing FAI badges, record attempts, and the selection of a Canadian team for the biennial World soaring championships.

free flight is the Association's official journal.

Material published in **free flight** is contributed by individuals or clubs for the enjoyment of Canadian soaring enthusiasts. The accuracy of the material is the responsibility of the contributor. No payment is offered for submitted material. All individuals and clubs are invited to contribute articles, reports, club activities, and photos of soaring interest. Prints (B&W) are preferred, colour prints and slides are acceptable. Negatives can be used if accompanied by a print.

free flight also serves as a forum for opinion on soaring matters and will publish letters-to-the-editor as space permits. Publication of ideas and opinion in **free flight** does not imply endorsement by SAC. Correspondents who wish formal action on their concerns should contact their SAC Zone Director. Directors' names and addresses are given elsewhere in the magazine.

All material is subject to editing to the space requirements and the quality standards of the magazine.

The contents of **free flight** may be reprinted; however, SAC requests that both **free flight** and the author be given acknowledgement.

For change of address and subscriptions to non-SAC members (\$18.00 per year/\$24 outside Canada) please contact the National Office, address below.

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Deadline for contributions
5th day of each ODD month

continued on page 5

L'ASSOCIATION CANADIENNE DE VOL À VOILE

est une organisation à but non lucratif formée de personnes enthousiastes cherchant à protéger et à promouvoir le vol à voile sous toutes ses formes sur une base nationale et internationale.

L'ASSOCIATION est membre de l'Aéro Club du Canada (ACC) représentant le Canada au sein de la Fédération Aéronautique Internationale (FAI, administration formée des aéro clubs nationaux responsables des sports aériens à l'échelle mondiale). Selon les normes de la FAI, l'ACC a délégué à l'Association Canadienne de Vol à Voile la supervision des activités de vol à voile telles que tentatives de records, sanctions des compétitions, délivrance des brevets de la FAI, etc. ainsi que la sélection d'une équipe nationale pour les championnats mondiaux biennaux de vol à voile.

vol libre est le journal officiel de l'ASSOCIATION.

Les articles publiés dans **vol libre** sont des contributions dues à la gracieuseté d'individus ou de groupes enthousiastes du vol à voile.

Chacun est invité à participer à la réalisation de la revue, soit par reportages, échanges d'opinions, activités dans le club, etc. Un "courrier des lecteurs" sera publié selon l'espace disponible. Les épreuves de photos en noir et blanc sont préférables à celles en couleur ou diapositives. Les négatifs sont utilisables si accompagnés d'épreuves.

L'exactitude des articles publiés est la responsabilité des auteurs et ne saurait en aucun cas engager celle de la revue **vol libre**, ni celle de l'ACVV ni refléter leurs idées. Toute correspondance faisant l'objet d'un sujet personnel devra être adressé au directeur régional dont le nom apparaît dans cette revue.

Les textes et les photos seront soumis à la rédaction et, dépendant de leur intérêt, seront insérés dans la revue.

Les articles de **vol libre** peuvent être reproduits librement, mais la mention du nom de la revue et de l'auteur serait grandement appréciée.

Pour changements d'adresse et abonnements aux non membres de l'ACVV (\$18.00 par an/\$24.00 à l'extérieur) veuillez contacter le bureau national.

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EDITORIAL DREAMS

For some reason, I missed sending you a copy of SOSA NEWS this month . . . Dixon More mentioned to me that you might be able to use an article or two from this issue. Please, go ahead and use something if you think it is suitable.

I have empathy for you when I think of what it must be like to have to fill a national magazine, having a solid deadline, with related articles. I have so much empathy that I'll just mention to you a recurring dream that I have had since renewing my editorship of our club's newsletter. Simply put, the dream (or nightmare) revolves around this editor having to cut, reject, reduce, and scrap all sorts of contributions for his small magazine, while insulting all sorts of world renowned authors. Horrible, isn't it?

Keep up the work, the magazine looks very good.

Yours truly,
Paul Thompson

AUSTRALIAN PAPERWORK

(I moved back to Australia in November, 1986.) At the end of May, I joined the Geelong Gliding Club but did not become very active until recently as I was concentrating on the flying needed to gain my Australian private pilot licence.

The poor Australian student pilot has a hard lot compared with the Canadian equivalent. First, he must undertake about 40 hours of initial training in order to get a restricted private pilot licence which allows him to operate on his own only within five miles of the airfield of departure or within the training area of the airfield. To get an unrestricted licence (allowing him to fly virtually anywhere) he must take additional training including four dual and one solo navigational flights of at least three hours duration.

Although my Canadian licences were recognized by the Department of Aviation, as a permanent resident I was required to obtain an Australian licence. My Canadian experience enabled me to qualify directly for the unrestricted Private Licence provided I could pass the flight test. I took a few flights to learn the local procedures then went for the flight test, which I passed. However, this seemingly simple process took a considerable amount of time thanks to winter weather. My practice cross-country flight required nearly two months of bookings before I got a suitable day.

Then I ran into similar problems with the weather for the flight test. All in all, including the administrative time for processing the paperwork, it took me about six months from the time I took my first refresher flight until the time I had the licence in my hands.

After I finally got the licence, I arranged for a check in the GGC Super Cub so that I can become active as a tow pilot. Even though I was rusty, my two circuits were enough to convince the check pilot I was okay, and the following day I did two tows with the chief tow pilot. He said that I hadn't forgotten how to tow and didn't need further training. He was prepared to approve my application for the letter of approval to undertake aerotows (more Department of Aviation #@!! red tape). Hopefully, in a week or two I will have this piece of paper and be able to start towing.

Apart from the frustrations of the local flying regulations, I have found it remarkably easy to re-settle back in Australia. My work, although not completely to my satisfaction, is bringing in a steadier income than I have had for a number of years and I am getting involved in the gliding scene once again. Best wishes to all my friends back in Canada.

Lloyd Bungey

STUDY NEEDS DATA

Aero Resources Incorporated are high technology, aerospace industrial consultants. We are currently conducting a market feasibility study to determine the market for, and the demand for non-powered aircraft, defined for the purposes of this study as sailplanes, gliders, and certain classes of powered sailplanes.

We seek your opinion regarding the growth, or non-growth in the demand for such aircraft, and ask that you provide an opinion, plus any additional information which you deem appropriate.

This study is being undertaken in response to a request from federal development officials for information which will be used to determine if federal financial support should be provided for manufacturing such aircraft in Canada.

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Readers are invited to respond, ed.

A NICE FLIGHT

Flabbergasted pilot claims a ...
only 19 years after first
flying lesson!

Silver height gain

Terry McElligott SOSA

Quite by chance, I managed to fly between the notch and the high trace last September to catch a Silver C 1000 metre height gain. Not precisely a record flight, but it was fun all the same.

Around the middle of the week of September 21, 1987, weather in southern Ontario began to clear with strong winds from the west, followed by a wonderful widespread high. Wednesday, Thursday, Friday, and Saturday were all quite fine for soaring with cloudbases increasing each day. It's rare enough to see days with six thousand foot cloudbases over these parts but that's what we were dealt on the Friday. Conventional wisdom says that in the springtime, cloudbases can be quite high here — one day in April, 1987 some SOSA pilots got over 9000 feet agl, and on 15 June I climbed to 7100 feet in blue lift, yet I recall looking up to see Bob Kurzwernhart's glider high overhead near 8000 feet on that flight, with just a few patchy-looking cumulus far above even that.

Look at a map of the area and you'll see that the "arrowhead" that is southern Ontario is surrounded by the Great Lakes; there are few directions from which we can rely upon unstable air free from lake effect. So we fly what we are sent. Whenever I go home to Quebec for a visit, there always seem to be cloud streets in deep blue skies but when I get back to SOSA, the windsock is limp — if it can be seen through the haze, although local pilots tell of using the weather to their advantage sometimes when fronts of convective cloud form far from the lakeshores.

Local pilots believe the Great Lakes ought to be drained.

And yet, modest ships have done great flights in this area, ships which were built long before fibreglass. But I digress. In the late summer and early fall, there are

often many perfectly good soaring days still to come.

By Wednesday, September 23, the leading edge of a high moved in and blew over us in a great hurry. I noted in my logbook then that the ship had reached 4600 agl and that it was quite windy. I recall having a feeling that if luck stayed with me, I might have some very interesting flights in the next day or two. The high was quite widespread and I began to ponder ways of shifting the rest of my life around all this unstable air. Thursday turned out to be another great day but I wasn't able to play. By Friday the high still showed no signs of weakening and cu began to pop shortly after ten. I managed to get to SOSA about three hours later not knowing if there would be another towpilot, but Herman Kurbis was there and — you'll pardon the expression — out of the blue I asked him if he would observe a height gain attempt. He would. The barograph was anointed with the appropriate chants and Official Observer spells, and we took the Club Libelle out to the runway. I got in, the ticking barograph got in (remember, check that it's working and set properly) and off we went.

Glasflügel's Club Libelle flies very quietly, so for the next three and a half hours I was followed everywhere by this infernal ticking sound: I had a strange feeling that if the ticking quit, so would the lift. After a time, I put the ticking out of my mind. The lift did not quit.

All tows that day were quite rough for the first few hundred feet, and initially it was difficult to fly smoothly behind Herman but after clearing this surface turbulence we settled in to a slow pull upwind. I began to feel a little weird because when I tow I can always tell when the glider behind me isn't coordinated. I had filled out the tow ticket for 3000 but at 2500 we flew through a pretty big thermal. Goodbye. The thermal was easily centred and the glider gained two hundred feet quickly. Aha! The thermal works; on to step two.

Now, this next part is one of those things you have to remember to do on a barograph flight; I opened the spoilers and lost four hundred feet circling down, trying to stay in or at least near the thermal, so that a low point would appear on the paper trace showing that the glider had released.

Luck had it that I was still well within three knot lift so I could try to follow it up to the top. To make the necessary thousand metres, we'd have to climb 3281 feet, so I calculated a ride to 5600 agl would be the first step. The Club Libelle climbs quite well in weak lift and had good penetration on this windy day, but I couldn't predict success just yet....

The cloud tops were generally flat and tilted downwind. It was really windy up there and we had drifted several miles southeast of Rockton, just a hundred feet below the goal. Several tentative circles indicated mainly sink, even at the upwind side of the cloud, so stick forward and off towards Cambridge in the distance.

I could see damn near forever, and it was very cold. We flew through a couple of weak thermals and pressed on with some altitude in the tank, and then connected with a five-knotter passing through fifty-six hundred feet, which is quite a fine little thermal by our local standards. It led up to a real fat cloud with a very dark underside — I had forgotten the ticking barograph, and suddenly became aware of it again.

Bernoulli's principle works even with thermals, and towards the top of this one the good lift in the core spread out and soon we were climbing very slowly, but I kept plugging away telling myself that as long as everything worked right, the height gain seemed to be in the bag. So, up we went past six thousand feet and I hung on below cloudbase for some time, remembering that the barograph lags behind, then I permitted myself just one smug grin and a victory spin, then pushed off upwind towards Brantford trying to locate Rod Crocker in the Hornet. I wanted to fly up near and grin and wave at him like a thrilled kid and share a little victory, but the footless halls of air hid him and his white glider pretty well.

The rest of the flight moved quietly below the towering castles, flying over the distant earth, expecting music to play at any moment. At times such as this, I sometimes get the strong impression everything below has stopped, that it's an illusion. Mind you, as illusions go, it's a very breathtaking one, peculiar to soaring and very, very solitary.

After three and a half hours, we flew back over the airfield, and since I had been on the go since three-thirty that morning, this after-work flight was becoming tiring; yet there was one more gentle thermal to take us up where I could see lots of Lake Ontario, Lake Erie, and signs of life by the shoreline, including the buildings in downtown Toronto over sixty kilometres away.

In the last two hours I had seen no other aircraft save a Cirrus 75 and some vapour trails high overhead ... did the Executive Class passengers see the sky the same way we did? Pulling out the dive brakes a mile aloft, details on the earth slowly became clearer, and the sky more distant, and then, after such a long time at higher altitudes, circuit height seemed absurdly low. Quick downwind, base, then turn to final; gentle bump, landing roll and turn towards the side, stopping just by the hangar. The left wingtip dropped gently to the grass and the only sound was the ticking barograph. All textbook, yet volumes between the lines.

Earth was still there, now just a hand's reach away and surprisingly warm after the lofty cold, but I did not want to touch it, or, heaven forbid, actually climb out and step on it. Just me, my ship of the imagination, and the sky. Did I have to come down? Could I not simply stay aloft forever?

I think it was Gren Seibels who said there are no atheists in sailplane cockpits.

I suppose that nowadays a thousand metre height gain is pretty easy to do, especially in a glass ship like the Club Libelle. Many of us have done the feat often, without barographs. At the end of a really nice soaring day you frequently hear of a save from a thousand feet over the airfield. Yet in the thirties the entire Silver C was often done in gliders which would have made a 2-33 look like a supership. A lot of those old sailplanes did not have variometers, which is something to keep in mind the next time you fly on a day when there is lift everywhere and you can afford to fall out of a thermal or two.

Remember, if you want to try a badge flight in 1988 — and why not? — see one of your club's Official Observers first. The paperwork all has to be straightened out before mailing and there are some deadlines you have to meet. When your freshly-issued Gliding Certificate arrives in the mail and you read through it, you'll note that the list of gliding accomplishments are formidable indeed. Here's hoping we all get to try for them. □

THE CLUB LIBELLE ...

In the mid-seventies, Glasflügel decided to develop a simple, rugged glass ship for club use. The H205 Club Libelle uses the same airfoil as the Standard Libelle, and differs in having a larger, stronger cockpit, a wider clamshell canopy, non retractable gear, and a T-tail. The ship is close to its claimed 35:1 L/D, has a parallelogram stick, inflatable cushion and rotating trailing edge dive brakes which are amazingly effective in allowing steep, slow approaches. The high wings stay away from damaging objects. In terms of performance, the ship is similar to the Grob Club IIIb, but requires very light control input forces.

Glasflügel built fewer than 175 and only one was imported into Canada by SOSA in 1976. XR's journey log tells some interesting tales: the ship has done wave flights in New Hampshire and a lot of 300 km flights have been accomplished in it from Rockton, which goes to show that you needn't blow the inheritance on a hot glass slipper. The glider is now cared for by a private syndicate. Considering the ship's performance and simplicity, it's too bad Glasflügel went out of business. It would have been interesting to see what aircraft may have derived from the Club Libelle. There are many similar new ships now on the market, an interesting indication that their time has come ... even as privately owned gliders, like the latter-day Ka6.



Terry McEligott

COMPETITION OBJECTIVES

continued from page 2

It is a perception held at present by some glider pilots that modern gliding competitions, which concentrate almost exclusively on closed course speed tasks, do not assess a broad enough spectrum of pilot qualities or at least do not assess them adequately.

Specifically:

- the point system forces attention to other pilot's performances in selecting flight strategy.
- the use of a defined course reduces, but doesn't eliminate, local weather influences at the cost of reducing the assessment of weather judgement of individual pilots.
- the strong emphasis on task completions (caused by the speed versus distance point balance) leads to short tasks at high speeds in strong conditions, which likely drives sailplane development in a direction which is possibly not in the best interests of gliding as a whole.

If the current competition task is to fly a given distance in the minimum time under the prevailing conditions, then the opposite end of the spectrum would be represented by free distance or flying the maximum distance possible with unlimited time.

An alternative task would be to fly the maximum distance possible in a given time which again implies optimizing speed, although with greater pilot flexibility. The concept would be to set a time interval (perhaps three or four hours) and allow pilots to select a start time of their choice with the task of flying as great a distance as they are able (using defined turnpoints, etc.) during the set time. A pilot would be scored on the basis of cumulative distance flown during the competition or by a point system applying to each day. Flight distance would be assessed as the sum of the completed legs flown before time was up, with the last leg prorated according to the speed achieved on the leg falling about the end of the time interval. Alternatively, a sailplane's location at the end of the time interval could be recorded automatically by some electronic device. The pilot would have the option of returning to the base airfield after the set time interval was completed. However, an optimum flight would clearly most often end with an off-field landing at the extreme downwind edge of the flight area, which would not be a desirable result for organizational reasons. Offering a point bonus for a landing at the base airfield is a possibility, but could result in skewing of scores for insufficient reason.

The advantages of such a competition would be in:

- forcing pilots to demonstrate greater weather assessment and judgement than that needed to fly a defined course,
- removing or minimizing consideration of other pilots' actions while flying the task, and yet,
- providing a unique challenge to each pilot. □

TOWARDS A SAFETY CULTURE

HOW DO WE MANAGE SAFETY AT OUR CLUBS?

Ian Oldaker

Chairman, Flight Training & Safety

An accident that occurs in a club usually has a profound effect within the club, and sometimes more broadly, within the soaring movement. Perhaps one of the more significant lessons that are learned from any particular accident, and the responses to it, is that there is often a broad measure of misunderstanding of what went on, and of the actions taken to prevent a recurrence. One of the unfortunate things about human beings is our failure to realize that an accident is the result of people not learning from the experience of others; we often ignore obvious dangers because the safe solution is embarrassing (it seems silly) or is “expensive”. We often forget that the cost of the accident can be far higher, particularly if someone is hurt or killed.

The purpose of having incident reporting is to be able to get details of fixes, or operational practices perhaps, to as many pilots and clubs as possible. An example is the letter sent to all clubs (and in fact, all organizations flying gliders in Canada) regarding the possible hang-up of Schweizer hooks when trying to “back release”. Without the quick notification to SAC of this, we could not have responded in a timely and responsible manner. Many incidents probably go unreported because the pilots feel they are inconsequential, or that some form of disciplinary action will be taken against them. This is unfortunate, because how can we adequately review our practices if we lack information?

Ideally, we should be collecting and sharing the data that comes from all sources, whether it is how to improve our cross-country speed or how to avoid bending our glider. To do this latter task, I suggest we aim at developing in all our clubs a so-called “Safety Culture”. Information on incidents and accidents will ideally come from the pilot(s) involved, observers on the ground and from maintenance people and instructors and so on in order to get a well-rounded input for analysis and remedial recommendations.

After an accident many people say, “it won’t happen to me because ...”, “I’m too careful — experienced”, “I fly a different glider”, or “my glider doesn’t have ...” (choose one of the above). Sure, the pilot may be more careful, or fly a different machine; it is often the case. However, is this not simply an escapist’s excuse? “It can’t happen to me (I’m invulnerable)”, they say. Instead, if the pilots were to openly and fully discuss what went on, then the reasons can be better understood and perhaps the need to share with others outside the immediate group or club will become more apparent. Instead of an incomplete understanding of the events leading to the incident, we might recognize a whole lot more goes on before the incident comes to an end. In other words, we will develop a far broader outlook of the potential contributors to accidents, and will be able to better assess our responses and our club’s practices when looking at other pilots’ incidents.

Immediately after an accident we tend to blame it on something that we can relate to, often on our own practices. The broader implications of club or training procedures (rules), of the weather, pilot factors (food, fatigue), and of the aircraft itself may get forgotten in the rush to “explain” it. It is too easy to explain it quickly and to defend the explanation rather than to take a breath, obtain other opinions and to look into some other factors. After an accident, there is often also a tendency to rush into “doing something”, to hope that the problem, if there is one, will go away; or to try and prevent a recurrence by instituting or revising a rule (restriction).

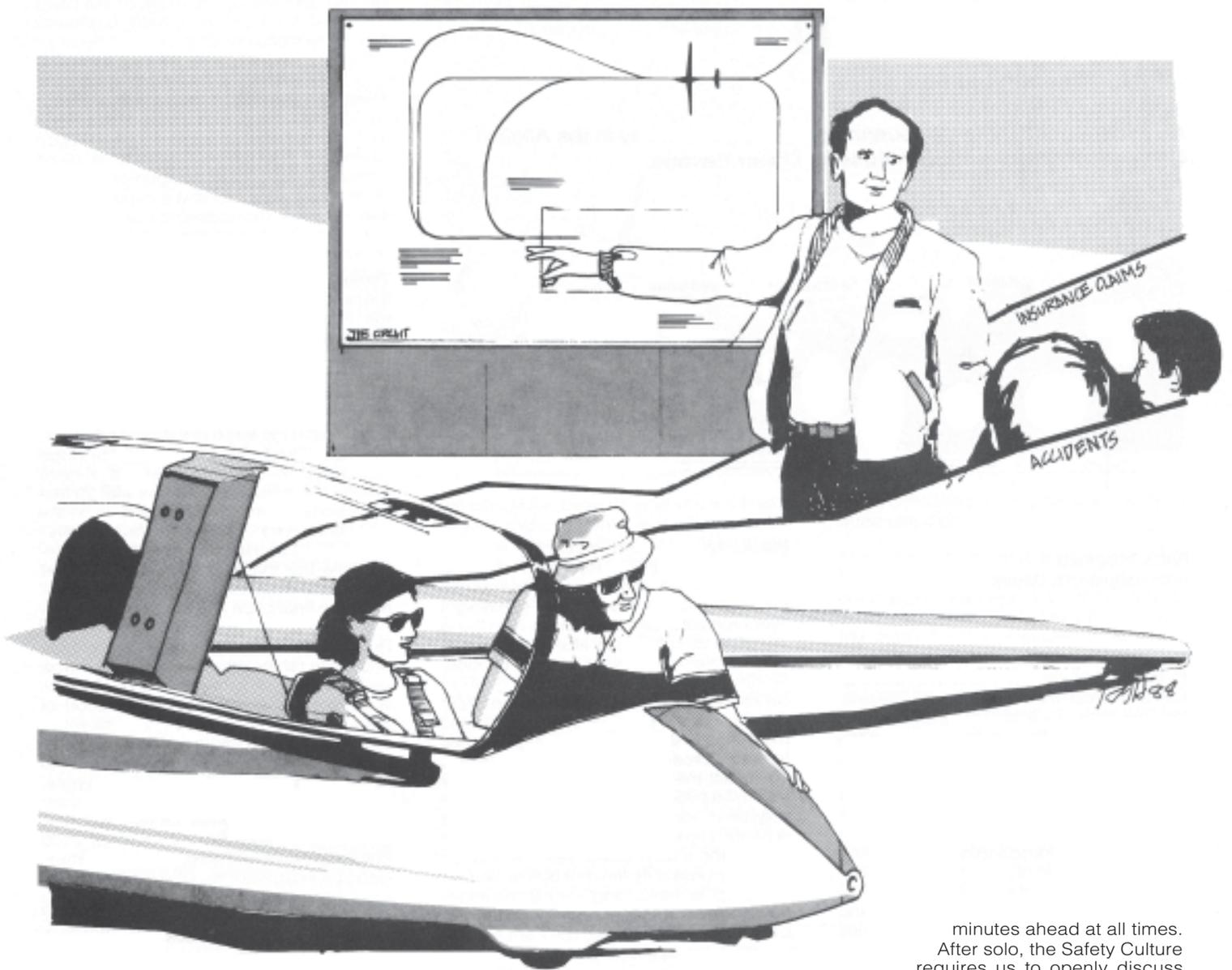
Before we change our *modus operandi* there can be a host of issues to discuss, particularly if a rash of accidents or incidents has occurred. It is only by collecting and identifying common factors that we can begin to recognize trends and to take appropriate actions. If a club does not analyze its incidents and/or does not share the data with the broader base of pilots in the association, then we may never learn the right lessons from our accidents and incidents.

Many of us have been in soaring for 20 or 30 years, and we have seen a thing or two. How often do we say that history has repeated itself? We have learned our lessons — we hope — by listening to others and by keeping alert. Pilots newer to soaring have not yet felt the need perhaps, nor the responsibility to think deeply about safety and the implications of their flying habits. As competent pilots, we believe we know how to handle ourselves and to avoid the obvious accidents. There is a bit of a complacent attitude in this statement, however, and we must beware; several of our more serious and recent accidents have happened to experienced pilots.

Consider this: the most difficult situation that we will have to handle is the event we have not yet anticipated and thought about. And the most difficult situations for the newer pilots are those that have not been experienced or thought through. Therefore, we need to train our students, the early soaring pilots, and ourselves to be competent to handle the unexpected. We cannot expect every situation to have been thought through beforehand!

If we neglect to train ourselves to think through various scenarios (or chains of events), are we setting ourselves up for a later accident because we are relaxed and have a comfortable feeling that all is well?

Our whole flying environment needs to be one of a Safety Culture in which the philosophy is to minimize risk. Recognition that people make mistakes is a first step, but then we must minimize the consequences of a mistake, and maximize the chances that the mistake will be recognized and then corrected before it is compounded. Notice that the onus for safety here is on the individual recognizing the error and correcting it, not on institutional rules or regulations. Yes these help, but too many stifle individual initiative and should be looked at critically. Encouragement and acceptance of a review of all incidents are part of the Safety Culture. This minimizes the chance that problems will be omitted or neglected because of a too rigid set of rules and lists of responsibilities for individuals.



Are we guilty of too slow a response to learning from our mistakes and those of others? We should constantly talk about our flying, the way in which we would handle different situations, whether to fly or not under the prevailing conditions, whether to push on or not, and so on. But this should be done with care and responsibility, bearing in mind the idea of a Safety Culture which hopefully will allow us all to improve continuously our own techniques and our training of up-and-coming pilots.

The Safety Culture demands that every action we take regarding flying has a safety implication or thought behind it. Why do we fly a standardized circuit prior to landing? To make sure we have adequate height for our final turn, for one thing! Why do we do a walk-around? Someone once found a safety pin had fallen out of the elevator push-rod connection. Why did the canopy fly open?

The pilot had not been trained to positively check the closing of it (and had not been briefed adequately during conversion?). I don't mention the larger issues of chains of events leading to spins, crashes into the trees, and so on; however, these often start from the more simple examples just given.

The Safety Culture demands that we start our pilots on a safety-oriented path — a cerebral path — from day one, and that we consciously feed safety ideas and train our pilots to be consistent . . . before getting in always check, am I ready to fly; is the **aircraft** ready to fly (locks off, tail dolly off, etc.), and is the **weather** suitable for me to fly ... and always to do these checks quite consciously and in the same order. When training pilots prior to solo, the Safety Culture demands that we teach them to think ahead of the consequences of their actions — where and how will the sailplane be flying one minute from now, two minutes later—in other words, to have a good mental picture of the flight several

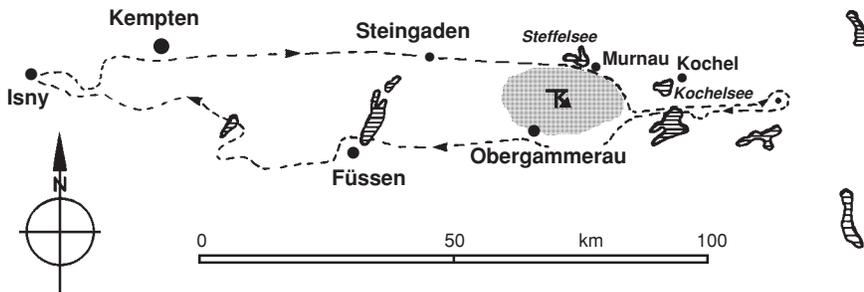
minutes ahead at all times. After solo, the Safety Culture requires us to openly discuss problems and to think through incidents. It also requires us to share our experiences so that others may learn from our flying and so avoid making the same mistakes once again.

If your club does not now have instructors meetings and/or club get-togethers to discuss flying, perhaps it should think about it (I should really have said *you* should think about it!). To start with, regular instructors meetings are a must. If they are not now held, you will be surprised how many incidents will come to light, some of which sound innocuous enough by themselves, but taken in the context of several may show up a trend that should be addressed. I am continually surprised at the positive things that come out of such meetings when incidents, their causes, and suggested remedies are discussed openly and without recrimination.

Let us consciously try to develop a Safety Culture. Heaven knows our accident rate is very poor, and if for no other reason than that we save the lives of a friend or two, it will have been well worth it. □

THE ART OF MOUNTAIN COMPETITION

An experienced mountain soaring pilot describes a day in the Allgäu Competition, held in 1986 in Füssen, Upper Bavaria.



Nick Hackett
from Sailplane & Gliding

Day 5: a 226 km task — Isny in the foothills to the west of Kempten, and the ski lift station at the top of the Brauneck to the east; the weather — a highly unstable and humid southerly flow up from the Mediterranean, giving 5/8-8/8 cover, bases 5-6000 feet in the mountains, and any penetrating insolation causing at the least heavy showers, or vast thunderstorms. Flowing down the north face of the Alps on to the plain, the descending air is leaving a 10-15 km band of clear dead air before weak thermals start again, giving 3/8 cu with bases at 4-4500. Ground level on the plain on the first and second legs varies between 2600 and 3600 feet, giving a maximum operating band of 2000 feet. The second TP is at 5100 feet, actually above cloud tops down on the plain.

On the first leg towards Isny, I have been forced to take every scrap of lift available, the best being no more than 1 knot integrated, with on occasion only 800 foot ground clearance above the wooded hills below, and some very weird misty air with varying bases downwind of the lake of Constance, but now passing Kempten again conditions improve to give up to 2 kt lift. Nevertheless, the possibility of a transition across that dead band to the mountains seems remote and I have already accepted that it will be a distance day.

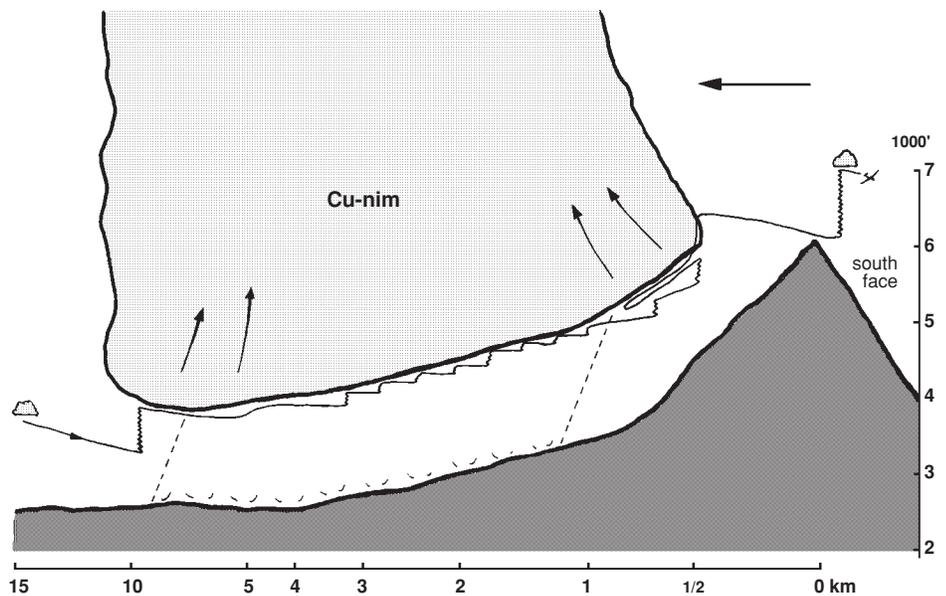
My fears are reinforced beyond Steingaden by the sight of a huge thunderstorm building across track, blotting out the valley at Oberammergau and spreading out across the Murnau bog towards the Staffelsee. After three years' flying this Comp, I have a healthy respect for these storms, but press on under the leading edge and for the first time, can increase speed in the gathering lift. Nevertheless the base, black, smooth, and

menacing, is way below the mountain tops and now the huge wall of water races towards me from the south, liberally laced with lightning. I synchronize speed and lift until I am flying at 100 knots at cloudbase along the leading edge of the rain towards the light beyond.

Six minutes and 20 km later, I come to the far edge of the storm. Below and behind me the ground has disappeared in a mist from the force of the downpour, but to the southeast the storm has emptied the sky and miraculously the ridge of the Herzogstand, 10 km to the south, is in bright sunlight. I fly south up the side of the storm and as the terrain below starts to rise, so does the base. I fly forward 300 m, stop to circle up to base, and repeat the maneuver again and again until I reach the back edge of the cloud, but I'm still 1/2 km from the spine and maybe 100 feet below it.

Tantalizingly in the clear air a small cu now forms high above the south face in front of me. I can see only one possibility, so turn northwards and fly down the lift under the descending cloudbase, gathering speed as I do so. Half a kilometre back I turn tightly and retrace my track, in the fashion of a long-jumper's run-up. This time I reach the edge of the cloud at 80 kt, pull up through the lip, and as the ridge reappears in front, realize that I have swung it. A minute later I cross with 20 feet to spare and immediately hit 2 kt lift off the rock face. The "window of opportunity" has opened and ten minutes later at an incredible (for the day) 7000 feet, I set off for the TP 17 km away, already programming the final glide into the Cambridge.

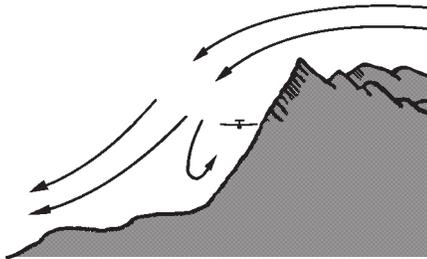
Rounding the TP — a quick view of blue and white tablecloths through the window — I am able to follow a line of lift back along the Benediktenwand, but short of the Kochelsee I can see that the storm — now marching off to the north — has completely killed the sky all the way back to Füssen, and I am in the last lift available. Already from the TP the computer has assessed the exact wind factor, and now gives me an absolute minimum of 8100 feet to cover the 52 km final glide. Amazingly, I manage to struggle up to the magical figure and set off, but immediately hit sink and lose 50 feet. I decide I can't even afford this loss and turn back to the thermal. This time I set off slightly upwind of the ridge way below and avoid the sink.



Thirty-five kilometres out I am flying within 20 feet of the height required in totally dead air. To avoid any height loss through unwanted control inputs from twitching muscles I am flying hands and feet off and on trim only.

Crossing just south of Oberammergau I approach the 30 km long Ammergebirge ridge leading straight back to Füssen. The south face is in full sun and beckons, suggesting ridge lift, but if it doesn't work I am trapped in a box valley at the far end. The north face promises sink in the lee, but possible wind shadow buoyancy immediately under the crest. I lean towards the south side, but 100 m from the rock a deeper instinct yanks the stick to the right and I slide into the lee. Twenty-five kilometres out at 53 kt I tuck myself into the rock face and the wind shadow is working.

The whole glide now depends on the last ridge 10 km out. If I can cross it, I'm home and dry, if not I must glide out into the sink and land on this side of the Forggensee. Exactly 9-3/4 minutes later, that fifty feet I went back for pays off as "X7" slides sweetly over the ridge with bare feet to spare and the airfield is suddenly visible beyond the lake. Putting the nose down gently I cross low over the dinghies sailing below and have just enough energy to cross the line, turn in and land, the only finisher for the day.



Coming home in the wind shadow.

This flight somehow encapsulated the '86 Comp — six days of totally absorbing flying, requiring every possible ingenuity, patience, finesse, and the ability to stand orthodoxy on its head when necessary to stay up. I recall with no small amusement the sight of experienced mountain pilots being gradually and unwittingly forced down into the foothills and successfully soaring mini-ridges and woods down on the plain. Two pilots could later show barograph traces below the baseline of just such episodes. I also had three very low saves from the centre of valley bottoms when the mountains failed to perform, two of these off fields being spread with manure. It is not the first time I have been saved by these gliding godsend, but the aroma certainly tends to hang on in the cockpit! Other things also stick in the mind: the first day I landed out at the tiny but spectacularly beautiful club at Agathazell and I was immediately offered a winch launch. Having failed to find the local lift I had to draw on local knowledge — "No problem — from the top of the launch fly west over the motorway, over the village, to the left of the church spire,



to the little ridge beyond, and you will find 1 m lift". Eight hundred feet off the winch seemed a bit tight for the 3 km or so to the ridge, and I did get a very intimate view of the spire, but the ridge worked as promised and soon I was away again.

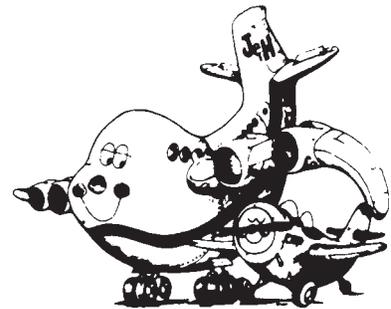
Another incident on the third day was later to cause much hilarity in the telling. I was flying at no small speed along a ridge at about 7000 feet when, turning a corner, I had to lift my wingtip sharply and not totally unnecessarily to avoid decapitating six priests intoning round a shrine. I started imagining the consequences had I contacted — the tabloids would have had a field day — "Careless English pilot decapitates Bavarian bishop on mountain top", and was so immersed in the humorous possibilities of the situation that I flew through two thermals and actually got

into some difficulties on an otherwise perfectly adequate day.

The club itself, under Director Willi Gugemos, proved to be great hosts once again. Perhaps not entirely fortuitously the Comp coincided with the local folk festival, which included a vast beer tent complete with band a short distance beyond the end of the field. This provided an alternative source of sustenance for the inner man in the evenings and much fun was had by all.

The 40 or so pilots, divided between Open and Sport classes, included two current German Champions as well as a number of Nationals pilots, and it is perhaps the mixture of a high class field in a competition dedicated to having fun that makes this event so special. □

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A PROPOSAL FOR A NEW GLIDER CLASS STRUCTURE

On building a class foundation for any future sailplane design.

Jim Oke

Winnipeg Gliding Club

Various proposals to alter the present system of classifying sailplanes have been put forward over the past few years. These proposals have called either for the modification of an existing class or the introduction of one or more new classes. A two-seat class and a class for Olympic competition have both been suggested. These proposals have presumably arisen either because of dissatisfaction with the present class system or in the hope of advancing the gliding movement as a whole.

Several observations may be made on the class structure currently in place:

- Sailplane classes are effectively defined by the world competition provisions of the FAI Sporting Code. Although constructors are obviously not bound by the Sporting Code in the type of aircraft they can build, in practice most high performance sailplanes are developed to conform to the world contest rules. Paradoxically, relatively few sailplanes are regularly flown in competition.

- The present 15m (or Racing) class and the Standard class can both be considered highly successful in terms of aircraft development and competition interest. The Open class does not have a wide following in comparison, but is seen as desirable for the purposes of technical development and exploring the limits of sailplane and pilot performance. Thus, there is some resistance to changing the present class structure by way of "killing" an existing class in favour of introducing another.

- The glider class structure is quite sparse in comparison to the classification of other air vehicles falling under the purview of other FAI Technical Committees. For instance, the ballooning movement recognizes ten hot air and five gas balloon classes. Powered aircraft fall into more than twenty classes depending on their size, weight, and mode of propulsion.

- A basic technical assumption can be stated that wingspan, maximum flying weight, and the availability of camber-changing devices (wing flaps) are the main constraints on sailplane performance. Due to human factor considerations, it also appears a significant distinction should be made between single and multi-seat sailplanes.

Proposal Rather than attempt to channel sailplane design, construction, and competition into two or three classes which may or may not suit the needs and desires of the gliding movement at large, a class structure should be put in place that will allow designers, constructors, and owners maximum flexibility in choosing future paths of sailplane development. The main criterion for sailplane classification would be wingspan. For instance, the following wingspan categories would likely cover the full spectrum of practicable sailplane designs:

Class I	10.0m	or less
Class II	12.5m	"
Class III	15.0m	"
Class IV	17.5m	"
Class V	20.0m	"
Class VI	22.5m	"
Class VII	25.0m	"
Class VIII	unlimited	

These divisions are suggested for convenience and to reflect existing aircraft types rather than for any firm technical reason. Other values could be used and there is no reason that different size increments could not be used; for instance: 10, 12, 15, 17, 19, 22, and 25 metres. For obvious reasons, a sailplane optimized for performance would use a wingspan at the upper end of its wingspan range thus limits are expressed in less-than-or-equal to terms. To account for different sailplane types, subclasses would be introduced, such as:

Class A	Single seat, with aerodynamic restrictions similar to present Standard class,
Class B	Single seat, wingspan only aerodynamic restriction,
Class C	Multi-seat, restricted aerodynamics, and
Class D	Multi-seat, no aerodynamic restrictions.

Another restriction that could be introduced would be the elimination of the carriage of in-flight releasable ballast (ie. water ballast) in class A and C sailplanes.

Thus, the present 15m class would become Class III-B, the present Standard class would be Class III-A, and most modern Open class sailplanes would be Class VI-B aircraft (the ASH-25B being in Class VII-D however). The proposed 17.5 metre class would be a Class IV-B aircraft, and a 20 metre two-seat class would be Class V-D.

A further refinement would be to set a maximum takeoff weight (in kg) for each class and subclass along the lines of:

	A	B	C	D
Class I	350	400	450	500
II	400	450	500	550
III	450	500	550	600
IV	500	550	600	650
V	550	600	650	700
VI	600	650	700	750
VII	650	700	750	800
VIII	700	750	800	850

These weights are illustrative and should receive further study in consideration of current and projected technology and related factors such as takeoff and landing safety.

Commentary The main point of introducing such a class structure would be to open more avenues of sailplane development. That is, if a constructor perceived a market for a given size or type of sailplane then there would be a clear set of rules to guide such a development. If the design was attractive to pilots (potential purchasers), they would be assured there was a class the aircraft would suit for competition purposes. If a body of pilots with such aircraft were so inclined they could then initiate competition in the class.

Obviously not all of the defined classes would be equally attractive. For instance, it is hard to imagine much interest in a two seat flapped sailplane of ten metres or less wingspan (a Class I-D sailplane) and this class (and others) would likely remain as an academic curiosity. Popular demand would be the guide for the development of other classes.

Existing sailplanes could be fitted neatly into the class structure if the parameters were set properly (that is, a 15 m wingspan and reasonable weight limitations). The elimination of water ballast for the "non-complex" classes might become a contentious issue as the viability of the current crop of Standard class designs could be affected. Presumably the success of the very similar Standard and 15m classes is proof of the value of specifying a complex and simple glider class in each wingspan bracket.

For the purpose of world competition, the CIVV could take the position of specifying which classes would be competed at each world competition. Clearly, it is not necessary that every class be competed

RUNNING THE RIDGE IN PENNSYLVANIA

at every world contest. Certain classes might appear regularly, with others on a rotational basis. Although the desire for glider pilots to meet as one group to exchange ideas and socialize is understandable, the single large world contest format might well be replaced by a number of smaller one class contests on an annual or semi-annual basis.

The disadvantages might be summarized as dilution of the present classes and confusion resulting from the large number of classes.

The introduction of additional classes for competition would presumably see some pilots move from the present classes to become active in another class. Given that the total number of active pilots is roughly constant there would be a reduction of activity in the existing classes. The question arises of what is a desirable level of activity in a glider class. Based on recent world contest experience some might argue that decreased pressure on the existing 15m and Standard classes would be a good thing. In practical terms, interest is evident in only three new classes: a 17.5 metre single seat class (Class IV-B), a 20 metre two-seat class (Class V-D), and a small (12.5 metre?) simple single seat class (Class II-A). National aero clubs would certainly be able to regulate competition at the national level in accordance with the wishes of local pilots with regard to the classes selected for competition.

The introduction of other classes might be confusing to the uninformed observer, but the situation is probably no worse than with sailboat racing today. Glider pilots would have no difficulty understanding the rationale for each of the classes. A family of new classes might introduce the need to recognize world records in each class in addition to absolute records which would lead to a considerable record-keeping burden, although this is not done currently at the international level for the Standard class or 15 m Class (although some countries now do this nationally).

The recognition of a separate motorglider category of sailplane might be accomplished by adding an M suffix to each class; eg.: Class V-DM would be a flapped 20 metre two-seat motorglider. But, perhaps it is time to recognize that modern motorgliders are fully the equal of pure sailplanes in unpowered flight which is the relevant portion of the flight regime to be considered by the CIVV. The same aircraft have set glider and motorglider records on successive days suggesting that the presence of the motor is not the great handicap it once was. An auxiliary power plant would simply be another method of launching a glider into unpowered flight (along with aerotow, winch launch, auto tow, and bungee launch). Since separate records are not recognized for pilots who are launched by winch or aerotow, is it necessary or desirable to extend such recognition to pilots who select an auxiliary powerplant as their means of getting airborne? □

Gary Paradis and Stewart Baillie Rideau Valley Soaring

reprinted from the newsletter of the
Canadian Advanced Soaring Group

Saturday, October 24 **Stewart**
The plan was to head off to Ridge Soaring from the Kars field (RVSS) at 0800, so at 0730 I picked up Beth McCollum and at 0800 we were hooking up my trailer with Std Cirrus "B1" inside. Almost on the dot of 8, Gary and Vickie pulled up and hooked on his PIK-20B "Golf Papa" and shortly thereafter our convoy was ready to roll. The weather at this point was typical of all gliding expeditions, gloomy with fog.

By 0815 we were cruising down Highway 16 towards our destination. The Molson's sticker on the back of Gary's trailer became very familiar to me over the next nine hours as Gary knew the way and had cruise control. The route was far simpler than I had imagined: west to Thousand Island Bridge to the USA, south on I-81, west on I-80 then south on 220 for the last few miles. We stopped a few times for gas and food but the nice, divided highway made the trip easy.

As we got closer to the Ridge I spent a fair amount of time looking at the height of the ridges (not nearly high enough!) and the possible landout sites along the route (what landout sites?). Finally the Ridge Soaring Gliderport sign came into view and we were there. On the runway sat "2W" with Walter Weir (from York Soaring) inside waiting for a tow. Walter, a long-time Ridge Soaring enthusiast, was here for his only remaining goal of a 1000 km flight. The ridge was not working in the conventional manner, but while we chatted with his wife Barb, Walter stayed up for a half hour on the "other side" of the ridge. Upon landing and derigging his immaculate ASW-20B we all headed out to the Port Matilda Volunteer Fire Department for an all-you-can-eat roast beef dinner.

Sunday **Gary**
Breakfast plans had been made for the Waffle Shop at 8:00 as we wanted to sleep in a bit after the drive down but things were sounding promising. Walter had been talking to Karl Striedieck who had said it would be a ridge day, this in contrast to the weather forecast of cloudy with a chance of showers. What does the weatherman know in comparison to Karl Striedieck when it comes to ridge running?

Another two novices to ridge soaring give the famous Appalachians a try.

The morning walk to breakfast was pretty brisk, and with no sign of Walte we knew something was in the works. This helped a rather large breakfast go down faster than usual.

Upon arrival at the gliderport, there was "2W" waiting on the line for a launch as the towpilot hadn't arrived yet, much to Walter's dismay. The towpilot soon arrived and Walter was on his way. This raised the interest level a notch or two — time to get in gear. After rigging, we checked in at the office where we were made to feel at home by Maria Grove who was running the operation while her mother, Doris, and Tom Knauff were out of town. Ridge Soaring policy requires all newcomers to take a ridge checkflight. Since the operation hadn't quite started, Maria handed us copies of the rule book and we spent a worthwhile half hour reviewing it.

By the time we were finished, the Grob was ready for checkflights. I went first and after a two minute tow to 1000 feet, it became evident that:

- the ridge was definitely working and,
- tighten your straps, it can be rough.

Two or three passes up and down the ridge, a tight circuit, and we were back on the ground. Stewart went next, and ten minutes later he was down. Back to the office to think things over — this done with the assistance of "Ridge Soaring the Bald Eagle Ridge" more commonly referred to as "The Book". Given that it was our first day, the 300 km zig-zag course (Ridge Soaring, Kettle Dam, Piper airport, power lines near Altoona, Ridge Soaring) appeared to offer a good introduction to the area without being overly ambitious. Again with the able assistance of Maria, declarations were completed, cameras were loaded, and barographs sealed. By 1150 we were on the line awaiting tow again.

Stewart

Since Gary went first for the checkout, I took the first launch and was joined by Gary a few minutes later as we headed to Kettle Dam. This turnout is about 55 km south of Ridge Soaring, just short of Altoona Gap. As I trailed Gary on the first leg, I was impressed by the ease of travelling 70 or so knots without the need to circle and by the closeness of the trees. As pointed out on the checkflight the lift is not constant along the ridge, but varies as the bumps

and knolls vary below. Maintaining a relatively constant speed throughout results in slow descents and ascents along the ridge, but the next batch of lift always seemed to be there.

Along the first leg we passed the power lines which was our declared third turnpoint. After a few nervous moments trying to decide whether either of us was going to clear the power lines, both Gary and I were struck with the question of how to take a turnpoint photo when the turnpoint was at or even above the altitude of the sailplane. Such a question was almost answered shortly thereafter at the first turnpoint.

As we neared Kettle Dam the ridge takes on a slightly different character. Instead of a single slope, the slope is steep at the lower part of the ridge and distinctly flatter at the upper part. As Gary turned out to follow the steeper slope I slowed down and took the high but less steep path. For the next few minutes, I watched as Gary moved away but seemed to be descending quite quickly. Our radio conversation at this point debated the decisions just made.

John Firth



Gary

Kettle Dam was easy to spot but a problem was created by the fact that it is set into the ridge, creating a small gap of its own. Being high, this problem was not a concern for Stewart. Being below the top of the ridge presented some interesting decision making. Given that there were few alternatives and since I did not appear to be losing any more height (basically there wasn't any left to lose) the only decision was to keep going. So into the gap, click, and back out while keeping an eye out for any other tree inspectors coming around the corner in my direction. While not gaining much more height as I turned north I asked Stewart for his location to which he replied, "3000 feet directly above." This was followed by the quote of the week, "Is there lift that low?" Nothing like having a friend to build your confidence!

In any case, even at the lower altitudes, the lift was sufficient to run between 60 and 70 knots on the north leg to Piper airport. All that was left to do was concentrate on my own flying as keeping up with Stewart became unrealistic at this point. This leg was comparatively uneventful other than having to dodge the odd hawk that wasn't shy about showing superior ridge running skills.

Stewart

Seeing Gary low at the first turnpoint certainly gained my attention and respect for the ridge, however, my height advantage allowed me to play with higher speeds. As my ASI read 80 more often than 70, I slowly left Gary behind and shortly thereafter, I was back at Ridge Soaring with a third of the flight behind me. The leg to Piper airport is dominated by the Howard Dam reservoir, which was a great mud plain not suitable for landing. Undaunted, I pushed on and soon was pushing into the valley for my second turnpoint photo. A quick radio call suggested Golf Papa was not too far behind and shortly after, as I turned back south, the blue and white PIK whizzed by, slightly higher but close enough to see Gary clearly.

Gary

The south leg from Piper airport to the power lines on the ridge top near Altoona was somewhat better than the first run. By this time, some decent thermals were popping off the ridge which helped ease my concerns about having to cross the ridge for the photo of the tower. However, even with the extra height from the thermals,

one didn't have to tilt the left wing very much for the picture. It seemed that I was almost opposite the top of the tower as I crossed the peak at less than 100 feet. Having taken the picture, it was time to have fun on the way home using both thermals and ridge lift along the way.

Stewart

The leg between the power lines and Ridge Soaring was the most populated of those flown. SM and 2W each passed by and waved although my airspeed now reached 100 at times. Ridge Soaring was not far off however, and I passed by the clubhouse at 2:30, some 2-1/2 hours after setting out on our little adventure. Gary joined me in a thermal over the valley shortly after 3:00 pm, and for the next hour or so, we looked at the sights from more comfortable altitudes. My lunch (which hadn't been thought of until now) was devoured and my straps were loosened from the tight strangle-hold that held me during my run down the ridge. A little later, both Gary and I congratulated each other on the tarmac at Ridge Soaring.

Overall, the day had not fulfilled all of the expectations of the morning. 2W had to cancel his 1000 km attempt due to the late launch and poor conditions at the very

north end of the ridge. A few 500 km attempts were made, but no Diamond distance was attained that day. On the other hand, a Pegasus with a local pilot flew a Diamond triangle and Beth McCollum raved about her one hour, forty minute flight in the Grob which took her and John, the instructor, over 140 km. Dinner that evening at Hoss', a local place in State College with good, inexpensive food, saw the re-living of a lot of great flying and smiles all around.

Monday Gary

With such a successful first day, our hopes were high for bigger and better things in the days to come. However, Monday turned into a fairly pleasant day, but with virtually no wind. There was enough thermal activity to remain aloft locally, but after being spoiled on the previous day, I did not find this quite as interesting and decided to pack it in early. Stewart followed suit within minutes as the sound of twist caps was more appealing. Tuesday rained for most of the day, but all was not lost as a real team effort went into installing my new radio.

Wednesday, October 28 Stewart

On Wednesday, the winds appeared promising, but squalls kept appearing both to the north and to the south. I decided to fly while Gary decided other matters needed to be attended to. The ridge was working, although not as strongly as Sunday so I cautiously crept out of the valley to see what thermal activity was around. Connecting with strong thermal lift I headed south but with descending cloud bases and threatening rain, I turned northward again after approximately 20 kilometres. The conditions were worse to the north of Ridge Soaring and after being rained on once and seeing large squalls developing just upwind of the gliderport, I decided B1 would be better off in the box.

Thursday it might as well have rained, but some flying was done by 2W in search of wave with no success. Beth and Walter grabbed the Grob at the end of the day to have a pleasant and relaxing flight as the shadows grew longer in the valley.

Friday Gary

Since the forecast was not promising, we decided to return home. All in all, it was a most enjoyable week. When the ridge is working, the flying is great, and when the weather doesn't cooperate, Tom, Doris, and Maria make you feel right at home keeping your hopes up for the next time. It's always nice to see "Mom and Dad" Weir although Walter didn't seem too fatherly when we asked him for the keys to his ASW-20B. Also, you can always run into other Canadian pilots from various clubs; during the week, members from Windsor and SOSA were visiting.

Both Stewart and I recommend Ridge Soaring highly. Beg, borrow, or steal a copy of Tom's book "Ridge Soaring the Bald Eagle Ridge" and study it before you go. This type of flying can be extremely rewarding, but extremely intense. As always, good preparation is the key to safe flying. □

PRACTICAL PUBLICITY

Some new thoughts on not keeping a secret

Terry McElligott
SOSA

In soaring magazines like this one, or "Soaring", or "Sailplane & Gliding", you can easily read some great technical articles, but there seems to be a serious lack of practical advice on how we can increase activity and the size of our sport. I understand there are less than 1500 of us still around, a figure I think of as, well, *underwhelming*, and likely to increase only if we stop keeping ourselves such a great secret.

I think the one of the hardest challenges facing soaring in Canada is growth. I also believe that we are ignoring this problem. I have a few ideas to add which may or may not help. I hasten to add that my line of work only touches on public relations so a lot of these ideas were hit and miss. As luck would have it, there was more hit than miss....

Ontario Place is a sort of permanent fair-ground run by the government of Ontario. It is situated on the shore of Lake Ontario off downtown Toronto and includes an IMAX theatre. At least once or twice a year "Silent Sky" plays there — that's the soaring film with Oscar Boesch — so in the spring of 1987 York Soaring and SOSA organized a small soaring display in the lobby of the theatre which included brochures there for the taking. All the local gliding clubs really shared the benefit because the display included a large map marked with airfields. The display was put together with the help and talents of members of both SOSA and York Soaring and it looked great. The people at Ontario Place were very helpful, so we endeavoured to make sure our display was in and out without fuss and I extended offers of complimentary glider rides to those involved through a letter of thanks.

The reason I mention these "small" details is simple. All of us in the working world know that follow-up can often move mountains.

Perhaps there is a theatre or university film society near you which will be featuring movies on flight in the near future. If they are approached the right way, it might well mean increased growth for your local club or clubs.

I question the value of press releases. In my job, each and every morning I wade through at least a dozen; most of them are badly written, boring, and oddly, a number of them just don't get to the point. However, I always respond to a handwritten note; somehow it's impolite not to. I also tend to react better to envelopes which

have handwritten or typed addresses, and those marked "personal" always, at least, get opened. Every so often someone will call — there's the follow-up again — to see if our radio station is able to mention their bit on the air.

The way I handle press releases is actually pretty typical. After all, how much attention do you pay to junk mail at home? Press releases are just another sort of junk mail.

Anyway, the point of this is, if your club wants some electronic publicity, it shouldn't be shy. If your club has a group of pilots who do a lot of cross-country flying, well now! That would make for some really interesting media coverage. Your local paper's Sunday supplement writers, or the local radio public affairs show staff love it when an interesting story walks in the door.

If they turn you down the first time, why not try again in two weeks, or try mailing them one of your club brochures and then call a week or so later?

I have spoken to a lot of people, not just those in soaring, who have said they found it difficult to get the attention of local media outlets to help publicize their particular thing. In one particular instance, I remember a man saying that he called a newspaper looking for publicity for his gliding club and was told by the city desk chief that the only way they'd run a story was if there was a crash. You shouldn't be put off by that sort of thing — good journalists are a lot more curious than that. Try calling a specific reporter, preferably one who has prepared technical or lifestyle articles or programs. That's what professional PR firms do!

At SOSA we also did the usual smart things about publicity — we have a large display which we put into the Hamilton Air show, and there's an annual sport aviation exposition at which we fly the flag. In the off season, it is a great idea to put your club's best sailplane into a shopping centre ... it would be kind of neat to wrap one up in a large bow and put it next to a Christmas tree, come to think of it. Shopping centres can be funny about mounting displays, but you may find the trouble worthwhile.

I think that every spring, all glider clubs should mail up-to-date brochures to the people who took introductory rides the previous season.

I think SAC should track down all the lapsed glider pilots and send them some literature, and should do the same for people with power licences, because a lot of them are simply not able to afford it any more. Now, there's a big job! You can show up at your local flying school, and go from the ground up through many ratings as fast as your wallet lets you, and, in most cases — admit it — faster than you could in the gliding world. Maybe, then, it would be worth our while to experiment with offering transition courses right at power schools, on a booking basis just as Private and Commercial Licence lessons are. These people already know how to fly; they appreciate quick, steady progress and would be ready to fit right in to your club Blanik. Who knows, they might just go out and form some new private syndicates! And tell their friends, and so on!

With the economics of aviation being what it is, you'd think we couldn't keep up with the demand for airplanes that can stay aloft for hours without gas! But we don't, because we're great at keeping it a secret.

In the 1988 Segelflug-Bildkalender, there is a really interesting series of photographs with an accompanying text on a 12 km closed-course contest held in France where top pilots raced in a valley. There were tons of spectators and coverage on one of the national networks. It was done as an exercise in publicity. You know what? I think they're on to something.

Yes, these ideas cost money. Some of them, I imagine, would be very expensive. Are they worth the cost, and who foots the bill? Perhaps equally important, who might do the footwork? I think the business people, those in advertising, marketing, and public relations who fly gliders and read **free flight** might enlighten us better than I can.

So how about writing **free flight**, with your ideas of course, but preferably with actual publicity that has produced results, both in attracting new members and in keeping them? One of the problems with doing publicity seems to be that it is an inexact craft. You can put a glider on display in a mall and have half your membership on hand to give out brochures but there is no guarantee anyone will join; and yet, I cannot seriously dispute the need for that sort of advertising because that's how I got re-acquainted with soaring. □

SAFETY

JUST HARD LUCK?

If we are alert, with minds and eyes open, we will see meaning in the commonplace; we will see very real purposes in situations which we might otherwise shrug off and call 'chance' — Roland Bach

Quoted in 'Nothing By Chance'
by Richard Bach

Accidents will happen and they can happen to anyone, so goes the conventional wisdom. Reasonably we are sympathetic to anyone who has just had an accident, well knowing that we could be the next poor victim. Possibly the root of our flying safety problem has already been implied in that such is our terminology and such the sympathy, that after an accident we can pose as a victim — the unwitting target of an unjust chance. The reality we are ignoring is that few of our 'accidents' should be so called for they stem directly from pilot decisions rather than from chance.

- At one hundred feet on take-off the towrope snaps and the glider pilot lands as gently as possible in the trees straight ahead. Chalk up one for the accident statistics for here is a victim of the chance or fortune which distinguishes the true accident. Sympathize with him. It could happen to you . . .
- A glider in wave is trapped above the cloud deck, enters cloud and spins until, still spinning in cloud, it hits a mountain side ...
- Off the downwind leg at about six hundred feet a glider plays in teasing 'lift' which suddenly turns to decisive sink at the most awkward time; too late a circuit is entered and the glider lands short of the runway...
- A glider lands neatly and runs straight as an arrow before swerving off to the tie-down area, colliding in the process with a runway marker...
- A glider about to land in a large, smooth field gets a nibble of lift and immediately circles — and drifts — until the lift dies and the glider is severely damaged by hitting one of the large stones littering the only reachable field ...

Hold your sympathy. It could happen to you, but only if you made a decision which made it possible.

The above events have two things in common: they have all happened fairly recently and they have all been included in the official accident statistics. As the paragraph was deliberately written in the style of modern conventional euphemism, it is easy to ascribe causes to inanimate ob-

jects. The causes are then, wave window closing, strong sink, runway marker getting in the way, and finally "running out of lift". (Is this mere cynicism or have you heard accident causes so described?) All of which is nonsense for none of the 'accidents' should have been so called. They were not a result of chance or fortune, but rather the direct result of decisions made by pilots. Decisions which made the 'accidents' possible if not inevitable.

Could such an 'accident' happen to you? If you have an accident at all it will almost certainly be of the 'non-accident' type for the accident statistics, and reports indicate that 90% of all these events stem from unwise pilot decisions rather than by chance events over which the pilot has no control. Most glider accidents can be ascribed to that most unacceptable of all categories — pilot error. Repeatedly, pilots put themselves in situations requiring luck as well as skill for extrication. Skill they might have, but luck is not theirs to command.

Obviously if this type of pushing your luck could be eliminated, most of the 'accidents' could also be eliminated. Unfortunately to change the situation requires that attitudes be changed and of all things on earth this is the most difficult. If you have ever had the task of trying to point out to a 'hot shot' that his flying is dangerous you will know what I mean. There is no easy solution to the problem but perhaps if we can grow to the point where we start to come out from behind our euphemisms and start to recognize reality, we have a chance.

Here's hoping you don't need luck in your flying. Little happens by chance.

Eric Newsome
from **free flight** 6/82

NOTES FROM THE SAFETY COORDINATOR

A few thoughts at the close of the 1987 season, from your somewhat discouraged safety commentator.

There have been a rash of accidents this year involving very experienced pilots, many of whom are over 50 and have been flying for over 25 years. Most of the accidents were minor, but two were fatal, sadly enough. Is there a reasonable conclusion to be drawn here? Are these accidents the result of carelessness, bred of familiarity, or is this the forgetfulness that comes with age? Could fatigue have been part of the cause — experienced, hard-working pilots doing just one more flight to help out? Having taken over in the towplane, after a

long cross-country flight of my own, I noticed my own flying skill getting ragged. Then I had to say, "Sorry — no more." I think some of us have to recognize that we no longer have the stamina to keep going ten hours at a stretch. A serious cross-country flight is very tiring mentally, as is a day of instructing. What about some comment from other older, experienced pilots?

Trainer Radios Now a completely different topic, but one possibly related to the question of forgetfulness and distraction from important tasks. Is the addition of a radio to a club glider really an aid to safety? If so, when and where? I can certainly truthfully say that during contests and record attempts, I turn the radio off most of the time, except when I need to communicate with someone, since I find that the constant stream of trivia from the local flying pilots is an irritating distraction. Radio may be useful in club gliders to allow them to soar when not needed by another pilot or until a tow is available, when they can be recalled. There are situations when radio could alert someone to a possible collision, but if pilots expect advice from the ground, they will cease to be fully alert for traffic.

The money you spend on radio installation and licencing could be better saved for a newer glider, with better penetration and better visibility, thus enabling longer flights further from the crowded local airspace, with less risk of collision. Dare I mention again the value of an audio vario in keeping the pilot looking outside?

Towplane Upsets SAC put out an alert regarding the hazards of towing on CG hooks in turbulent conditions. Data on tests and accidents has been coming in from other countries, and there is little reassurance in their reports. The problem is not restricted to CG hooks or high tow position. A loss of towplane and glider, and a triple fatality occurred when a Blank failed to release fast enough after the tug ran out of fuel at 500 feet. Apparently, the pilot was endeavouring to hold the nose up while trying to release, probably the wrong thing to do anyway. (If you have difficulty releasing, take tension off the rope.) Eventually, the rope was released but the glider, with full (?) up elevator, flick-rolled inverted and did not recover from a spiral dive before hitting the ground. This is an alarming scenario; all pilots should be aware of this possibility if the need to release occurs.

The GFA accident report concludes:

- 1 If the glider pilot loses sight of the towplane, he must release IMMEDIATELY.
- 2 Towpilots facing an emergency are too concerned about the glider. If the towpilot sees his airspeed falling and needs up elevator, he should also release immediately — the glider is probably pitching up. To delay may make release impossible. The BGA tests showed that you have only two to three seconds in the event of a glider pitch-up before the towplane is stalled by the tension in the rope. Recovery from this situation takes about 1000 feet.

The Flight Training and Safety Committee will be discussing this problem further.

Reporting The submission of accident/incident reports has again been erratic, with a few clubs assiduously sending in every incident, and most others nothing at all. SAC needs your help to gather statistics so we can identify trends in risks before they become accidents.

Your comments are welcomed, especially in **free flight** this spring. Take care on the slopes this winter!!

Battery Storage A reminder from the Quebec club. Batteries must be removed from towplanes during winter storage, since they will discharge over a few months to the point at which they will freeze, or at least be damaged by sulphation. A frozen battery may split and dump acid on the airframe, dangerous and expensive!!

John Firth

CLUB NEWS

ONTARIO SOARING SOCIETY

- Ontario CFIs are urged to attend a Safety Seminar to be held in conjunction with the SAG AGM on the 4th of March. SAC's safety record has become so alarming, that OSS is willing to put its money where its mouth is, and reimburse attending CFIs up to \$100 — to help defray expenses.
- It has been suggested that Montreal Soaring Council be asked to join OSS since their airfield is, unquestionably, in Ontario.
- There used to be a Thunder Bay Gliding Club, but attempts to reach anyone connected have proved unsuccessful ... anyone know if it's still around?

- Ontario's Provincial Soaring Contest will be hosted by Gatineau from 28 June until 3 July. OSS thanks Gatineau, Brian Milner and his committee for their efforts.
- SOSA has made a request to host the 1989 National competition.
- OSS has endorsed 'Little-guy' (beginners) competitions, suggested by Kars, who will also be actively supporting the development of cross-country programs including their instruction week. Anyone interested should contact Glenn Lockhard at Rideau Valley Soaring School.
- OSS has funds to help promote coaching schools, safety seminars, and formal ground school, starting material for new pilots and similar projects. If your club is interested, contact Ian Oldaker.
- Oscar Boesch, any time he is in your neighbourhood giving a show, would appreciate a hand with the operation. He will also give your club a kind word in his commentary, and distribute leaflets. Oscar also mentioned the occurrence of back injuries in heavy landings aggravated by soft seat cushions — the combination of high compressibility and lack of energy absorption of these materials makes the blow to the spine worse than if the cushion were not there at all.
- The Erin and Kars clubs are listed in the Yellow pages, which give a telephone number (with a taped message — changed frequently), creating lots of revenue. RVSS receives about 45 calls per week in the summer.
- Slide presentations in the local library, high schools, etc. were suggested as beneficial from a publicity point of view. Apparently, the worst thing we all do is to have an inhuman box number, since nobody empties the box regularly — and if they do, the stuff gets left lying around or fired into file 13.
- Mention was made that instead of trying to attract new members, we should make greater efforts to keep the old, by keeping them interested, motivated, and not bumped out of their turn by any just-came-in-to-try-gliding famil flight.
- Interclub communication, and interclub visits could also foster greater esprit de corps. Toronto Soaring, with a winch operation, extends an invitation to all.
- The suggestion was made to encourage other aerospots to have AGMs at the same time — to make the whole thing into one giant aero-show. SAC is putting together a package to help new clubs, but it is not completed yet.

The 1988 OSS fee, collectable from each club, will be \$5.00, plus a suggested "Donation" of \$1.00 per club member ... of course, each club is welcome to donate more — if they wish — 'twas ever thus, weren't it???

Ray Lawton
Rideau Gliding Club

continued next page



HANGAR FLYING

NEW CLUB DG300

The German manufacturer, Glaser-Dirks, has announced a new sailplane design, the DG300 Club, aimed at the club market rather than the private owner

The new design is a variation of the already popular DG300 Standard class sailplane which the company has been producing since 1983.

In developing the new Club class version, designer Wilhelm Dirks has eliminated some of the features of the Standard class version in order to simplify both the construction and maintenance. Items removed from the latest design include wing and tail ballast tanks, retractable undercarriage, and wing turbulators, though wing tanks and retractable undercarriage are offered as "extras". The aim in producing the DG300 Club has been to provide a lower-cost and more easily maintained sailplane that would be suitable for general club flying, including early soaring and first cross-countries.

Features of the DG300 retained in the Club version include the excellent handling characteristics and docile stall. Built

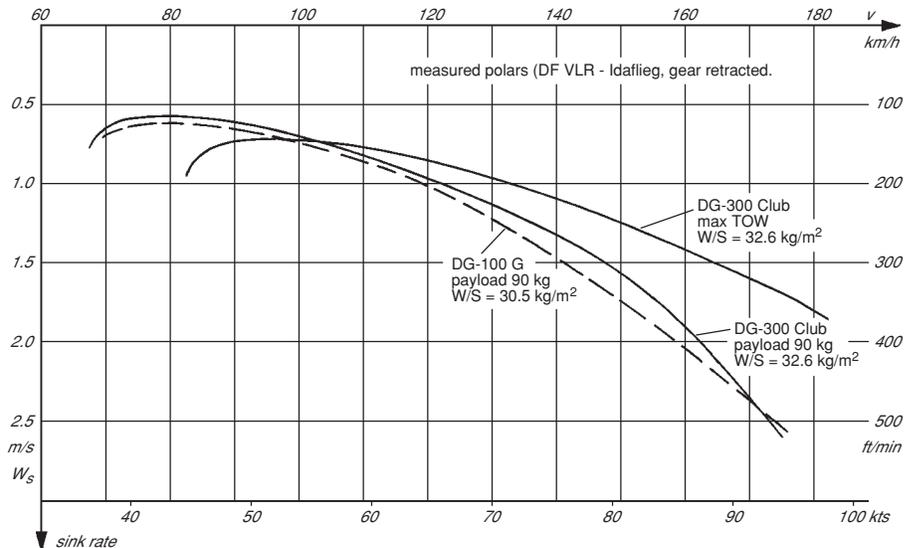
entirely of fibreglass, the DG300 Club includes automatic hook-up of controls, an impact-resistant cockpit, comfortable seating, including adjustable back and neck rests.

The single-piece canopy is hinged at the front and is supported by a gas strut.

There is a reliable emergency jettison device. A combination of effective air brakes and wheel brake ensures good short field landing performance.

The triple-trapezoidal wing plan and triangular tips have low sensitivity to dust or impacted insects. The sailplane is claimed to be highly maneuverable, yet provide steady stable flight both in low-speed circling and high-speed gliding.

All control handles are placed in functional positions to minimize errors in operation. The parallelogram control column provides smooth speed changes. A



CHAMPLAIN '87

Le début de la saison 87 a été marqué par l'incertitude sur l'avenir du terrain de St Antoine et pour une deuxième année consécutive, par une diminution dramatique du nombre de nos membres, celui-ci passant de 43 à 20. Heureusement, au cours de la saison, la situation s'est renversée et 20 nouveaux membres ont adhéré à l'association. Nous avons effectué 1214 vols ce qui est très bon étant donné que nous n'avons pratiquement pas volé durant la semaine et qu'en automne, la météo a été très défavorable. De plus, des accidents et des réparations à effectuer nous ont privé de trois appareils dont deux durant tout l'automne. Notre saison a été sauvée par les deux semaines de vacances de la construction en juillet ou 279 vols ont été effectués et par un afflux de passagers suite à la parution d'un article sur le vol à voile dans le journal "La Presse", le premier août. Dans les semaines qui ont suivi nous avons connu plusieurs journées de 40 vols ou plus, dont une de 49 vols, un record.

La saison s'est achevée de façon positive avec les deux fins de semaines passées à St-Jovite. Les conditions de vol ont été bonnes quatre jours sur cinq et ont permis à plusieurs d'effectuer leur premier vol sur monoplace de performance. On a pu également saluer Serge Morin, notre ancien instructeur-chef, de retour après

avoir travaillé durant la majeure partie de l'année comme instructeur de vol à voile en France.

Finalement, un événement mémorable a été le souper gastronomique du 14 novembre qui a réuni 30 personnes. Organisé en grande partie par deux nouveaux membres, Claude Gosselin et Sylvain Beriault, ce souper a été un grand succès.

• • • • •

The beginning of the 1987 season was marked by the uncertainty about the availability of our St-Antoine field and, for a second year in row, by a drop in membership from 43 to 20. Happily, we were able to enrol 20 more people in the course of the year and bring our number back to 40. We made 1214 flights which is very good since we did not fly much during the week and lost three gliders to accidents and maintenance repairs. During autumn, we were down to two gliders at times and lost many flying days due to poor weather. All this was compensated by the two vacation weeks in July where we made 279 flights and by the large number of passenger flights we made after an article on soaring was published in "La Presse". In the following weeks we had many days of 40 flights and up, the record day being 49.

The year ended well with the two weeks spent in St-Jovite. Flying conditions were

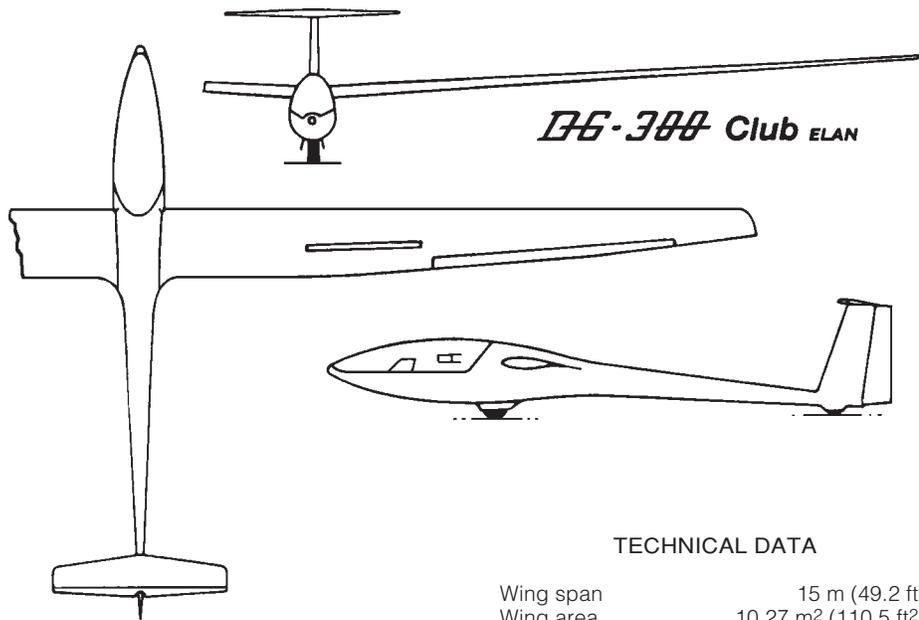
good and many people got the chance to try performance single-place ships for the first time. We also had the chance to welcome Serge Morin who was back from France where he spent most of the year working as a soaring instructor. (See "310 km in France" in previous issue.)

Finally, a gastronomic supper was given on November the 14th. Organized by two of our new members, Claude Gosselin and Sylvain Beriault, it was a well-deserved success with 30 persons attending.

Paul Dorion

VANCOUVER SOARING AWARDS

The VSA Cross-Country Soaring Award was given for the longest (handicapped) flight in a club ship to Peter Timm for a 425 km Jantar flight from Ephrata. Peter then presented the Columbia Basin award to Lothar Schaub, for the longest flight (over 500 km) by a Flying Member made in that area. Lothar noted that on the same day Helmut Gebenus, who was a social member at the time, flew over 620 km at the same time. It is the longest flight made by a BC resident on record. (Helmut's flight was also recognized at the Seattle awards banquet which took place on the same day; it was the longest flight made in the Columbia Basin in 1987. The Altitude



"Kestrel-type" automatic trim has a speed selection lever and indicator.

The dive brake and undercarriage compartments are sealed and all pushrod openings in the wings are also sealed. The baggage compartment has been enlarged by lowering the position of the battery from that in the DG300 Standard.

from Australian Gliding

TECHNICAL DATA

Wing span	15 m (49.2 ft)
Wing area	10.27 m ² (110.5 ft ²)
Aspect ratio	21.9
Length	6.8 m (22.3 ft)
Fuselage width	0.63 m (2.07 ft)
Fuselage height	0.81 m (2.66 ft)
Empty weight	
with min. equip.	238 kg (525 lb)
Max. takeoff weight	385 kg (849 lb)
Max. wing loading	37.5kg/m ² (7.68 lb/ft ²)
Max. speed (VNE)	270 km/h (146 kt)
Stall speed	63 km/h (34 kt)
Min. sink @	
78 km/h (42 kt)	0.59 m/s (110 fpm)
Max. L/D	39.5

Award was earned by Ken Langland for his flight over 18,600 feet at Hope. (Ken also earned the Pacific Northwest Trophy from Seattle Glider Council for this flight.) After telling us about Ken's flight, Peter called on Lothar to receive the Senior Award for The Most Outstanding Flight made by a Flying Member. Walter Kunster received the Hope Cross-Country Award for his flight across the mountains from Hope to Princeton in his Ka6.

WD-40 USES

Aviation mechanics know the importance of routine maintenance. Without periodic attention, critical parts become sticky, corroded, and even inoperable. Repairs and resulting service interruptions are costly.

To aid this ongoing maintenance, certain products are available which can reduce inevitable problems. Some manufacturers have as many as three or four different products. Some are designed to lubricate and others to clean, or to penetrate to free sticky or rust-frozen parts. Still others prevent rust and corrosion. The ideal solution is to find one product which combines all functions. According to the maker, "WD-40" is the solution.

"WD" stands for water displacement. WD-40 is a water displacement material, which

is formulated to penetrate into the pores of metal surfaces and produce a continuous molecular film. It acts as a lubricant, penetrant, rust preventative, and cleaner.

Originally developed to prevent corrosion in Atlas missiles, WD-40 has a variety of applications for all types of aircraft. For example, a little spray will prevent moisture degrading electrical systems. It displaces water and prevents it from wetting the surface, thereby preventing short circuits.

When sprayed on the metal or wire surface, the displacer forms a continuous non-conductive film, acting as a barrier to any additional moisture. The liquid also enters into microscopic pores and hidden cracks, forming a protective film and causing water to bead up or run off as it hits the surface.

The water displacer can be sprayed into electrical circuits and switches without damage. This molecular film doesn't disturb the current's flow between metal surfaces such as ignition contact points, because it is thin and fluid.

Because it contains no silicone, WD-40 won't become gummy or attract dirt or dust. It is designed for stopping corrosion on console panel switches, hinge bearings, wheel housings, and seam areas. When fogged into fuselage and wing interiors periodically, it will prevent interior skin corrosion.

When WD-40 is sprayed on these areas, it deposits inhibitors into the grain areas of metal surfaces, removing existing moisture and providing a protective film against moisture penetration.

The product is equally effective for lubricating sticky parts. A single spray will penetrate hinges, caliper pins and controls, and keeps all elements operating smoothly.

WORLD SAILPLANE AEROBATICS CHAMPIONSHIPS

from the Sailplane Aerobatics Association Newsletter

The second World Championship was held in Poland during the first two weeks of August, 1987. The US team placed fourth. There was no mention of a Canadian team. The SAA is open to pilots from USA, Canada, and Mexico. After four of the six flights flown, Les Horvath was in second place. Les had what can only be described as brain block, flying a wrong maneuver and then leaving out the last three maneuvers of the sequence. This dropped him to thirteenth. The first two places went to Makula and Tomkowicz of Poland. By very steady flying, Nancy Blank came in third overall.

The contest finished with a wonderful example of sportsmanship. The present CIVA competition rules divide male and female pilots, there having to be at least six women pilots in order for there to be a female champion named. Since only three women pilots entered, they were not formally eligible for awards. Ludwig Fuss of Germany was in fourth place, only five points out of 15,453 behind Nancy and was technically the third place. He declined to accept the award, explaining that he felt that the present rules were incorrect and asked that the award be presented to Nancy. That was only fair, but it was also CLASS! Everyone agreed with this action and all participants signed a petition to CIVA to make the award official.

12 TO 14V CONVERTER COMING

Frequent requests for 14 volt battery packs to power radios has stimulated the development of a small power converter, the size of a large matchbox, suitable for glider systems. This converter will produce a regulated output of 14V from an input voltage of 11-14V, with a current rating of 1.4 amperes.

Thus, a 12V battery system will be suitable for those radios which transmit poorly as soon as the battery is less than fully charged. A switch will allow for converter selections of "Off", 14V (transmit only), or 14V (steady).

See the note in the last issue of **free flight** on the coming of non-availability of Gel-cells to make up 14V battery packs. Contact "Firmal Electronics" (under "Suppliers" on page 20) for information on price and delivery.

WINTER DIRECTORS' MEETING

Al Sunley, Alberta Zone Director

The January 9, 1988 meeting was opened by the President, Gordon Bruce. All Directors except Jerry Dixon were present. Also present was Jim McCollum, Nancy Nault, and Ella Gormley.

Membership lists Gordon Bruce requested the directors to inform the member clubs that it was important to send back the copies of the membership lists to the SAC office, either with corrections or as-is if no corrections were necessary. The response from the clubs has been good.

OO and instructors lists Nancy Nault indicated that these lists were currently being updated by the National Office.

Flight Training and Safety Committee Chairman, Ian Oldaker gave a report on the committee. He requires new members from the Alberta, Prairie, and Maritime zones. There will be a committee meeting on 20 February; Ian will be forming a three member Safety sub-committee.

Ian reported the Soaring Instructor's Guide is ready for printing. Transport Canada has given tacit approval. Funds are required for illustrating the Guide, and the Board allocated five hundred dollars for this.

The fee for the three instructors courses being held this year will be \$125. They will be held at the Gatineau, Quebec, and Winnipeg clubs.

SAC membership It increased by five persons in 1987. Discussion held on ways to stop drop-outs and bring back old members.

Financial report Jim McCollum presented a preliminary statement. Government grants were more than expected. Telephone expenses and affiliated membership expenses were quite a bit higher than budget, but printing costs were down considerably, so the year ended with a surplus.

Insurance Bryce Stout could not attend, so Al Schreiter gave the Insurance committee report. Premiums have not yet been settled for 1988, but we don't expect much increase over 1987 rates. There are copies of the policy. It was finally delivered to the clubs during the last two weeks, and it will also be good for 1989 as we expect to have the same underwriters. Negotiations are very difficult when only one or two companies are interested in our business. Clubs need to thoroughly review their procedures to reduce careless operation and reduce the damage costs.

Calendars Bob Carlson reported on the calendar rates. Transportation and postage costs are within budget. Less than 90 calendars are left with good prospect of those being sold. There is a need to order earlier to reduce transportation costs. A motion was carried that the Board authorize Bob Carlson to order 400 Segelflug-Bildkalenders for 1989.

World Contest fund A final summary has been done on the World Contest fund with comments and recommendations by Bob Carlson.

SAC video library Gordon Waugh is still requesting video tapes on gliding from all clubs. Directors are requested to pass information to clubs and members.

The Bronze badge This badge is now official. Proposed rules have been approved. It will have a bronze wreath around the present "C" badge.

AGM preparations Paul Schweizer will be a guest. Workshops are planned, and there will be a Provincial Council meeting and a CFIs Safety Seminar. Other Aero Club members will be asked to send delegates to the SAC banquet.

Sport Canada grant SAC has asked for funds for marketing (we must match any grant). Soaring posters have been proposed that can easily have club names overprinted.

Sporting The Sporting committee requires a replacement for the outgoing chairman and we should have one shortly. Ulli Werneburg, chairman of the Canadian Advanced Soaring Group, is drafting a procedure manual, as is Jim Oke. The two manuals will be merged. A Seeding procedure manual has also been completed. Sporting licences are now handled by the Aero Club of Canada, and the fee is \$10.

SAC objectives for 1988 SAC will be placing an accent on Training, Safety, and Communication.

New Clubs Sport Air should be ready to join. A motion was carried to accept this club on a temporary basis.

International Membership licence category Transport Canada is trying to achieve the same procedure for Personal glider licences as is now in place for Power licences.

Donations and income tax receipts There was considerable discussion on the repercussions of SAC-issued tax receipts for donations in the very grey area of direct benefit to the donor. It is considered to be necessary to have authoritative clarification of our liabilities if the tax guide is contravened. □



Larry Springford
45 Goderich Street
Kincardine, ON N2Z 2L2 (519) 396-8059

The following Badges and Badge legs were recorded in the Canadian Soaring register during the period 1 November 1987 to 31 December 1987.

GOLD BADGE

236	Gary Paradis	Rideau Valley
237	Stewart Baillie	Gatineau
238	James Feyerer	Edmonton

SILVER BADGE

752	Stewart Baillie	Gatineau
753	James Feyerer	Edmonton

DIAMOND ALTITUDE

Dugald Stewart	SOSA	5639 m	Std Cirrus 75	Lake Placid, NY
Dominique Bonnière	Gatineau	6780 m	PIK-20B	Lake Placid, NY

GOLD ALTITUDE

Dugald Stewart	SOSA	5639 m	Std Cirrus 75	Lake Placid, NY
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DIAMOND GOAL

Gary Paradis	Rideau Valley	306.8 km	PIK-20B	Julian, PA
Stewart Baillie	Gatineau	306.8 km	Std Cirrus	Julian, PA

SILVER ALTITUDE

Dave Springford	Regina	1996 m	Std Libelle	Strawberry Lk, SK
Jacques Boily	Quebec	1460 m	Pilatus B4	St. Raymond, PQ
Joseph Paumard	Windsor	1240 m	K8	Dresden, ON
Ian McKenzie	Bluenose	1524 m	K8	Stanley, NS

SILVER DURATION

Tom Okany	Montreal	5:20	Std Cirrus	Hawkesbury, ON
Ian McKenzie	Bluenose	5:10	K8	Stanley, NS
James Feyerer	Edmonton	6:20	Std Jantar 2	Chipman, AB
Donald McDonald	Erin	5:10	Puchacz	Grand Valley, ON

SILVER DISTANCE

Dave Springford	Regina	129.3 km	Std Libelle	Strawberry Lk, SK
Dave Montgomery	York	70.7 km	1-23	Arthur, ON
Stewart Baillie	Gatineau	306.8 km	Std Cirrus	Julian, PA

C BADGES

2094	Dave Springford	Regina	3:09	Std Libelle	Strawberry Lk, SK
2095	Richard Wilkinson	Kawartha	1:28	Grunau Baby	Omeme, ON
2096	Bryan Konshak	Grande Prairie	1:09	Blanik	Beaverlodge, AB
2097	George Dawe	Edmonton	2:40	1-23	Chipman, AB
2098	Robert Harris	Air Cadet	1:35	1-26	Arthur, ON
2099	Ian McKenzie	Bluenose	5:10	K8	Stanley, NS
2100	Kurt Berger	Rideau Valley	1:11	2-33	Kars, ON
2101	John Burke	Erin	1:01	1-26	Grand Valley, ON

SAC DIRECTORS & OFFICERS

PRESIDENT & DIRECTOR-AT-LARGE

Gordon Bruce (1987)
154 Shannon Pk,
Beaconsfield, PQ H9W 2B8
(514) 697-1442 (H)

ONTARIO ZONE

Dixon More (1987)
27 Roslin Ave South
Waterloo, ON N2L 2G7
(519) 886-2424 (H)

VICE-PRESIDENT & PACIFIC ZONE

Harald Tilgner (1986)
90 Warrick Street
Coquitlam, BC V3K 5L4
(604) 521-4321 (H)
(604) 263-3630 (VSA)

QUEBEC ZONE

Alex Krieger (1987)
1450 Oak Avenue
Sillery, PQ G1T 1Z9
(418) 681-3638 (H)
(418) 656-2207 (B)

ALBERTA ZONE

Al Sunley (1986)
1003 Keith Road
Sherwood Pk, AB T8A 1G2
(403) 464-7948 (H)
(403) 453-8330 (B)

MARITIME ZONE

Gordon Waugh (1987)
5546 Sentinel Square
Halifax, NS B3K 4A9
(902) 455-4045 (B)

PRAIRIE ZONE

Gerry Dixon (1986)
Box 124
Sintaluta, SK S0G 4N0
(306) 727-4917 (H)

DIRECTOR-AT-LARGE

Bob Carlson (1986)
57 Anglesbury Boulevard
Islington, ON M9A 3B8
(416) 239-4735 (H)
(416) 365-3558 (B)

EXEC SECRETARY

Nancy Nault
306 - 1355 Bank Street
Ottawa, ON K1H 8K7
(613) 739-1063 (B)

TREASURER

position vacant

COMMITTEES

AIR CADETS

Gordon Bruce
154 Shannon Park,
Beaconsfield, PQ H9W2B8

PUBLICITY

Grant Graham
966 Glenbanner Road
London, ON N6E 1N2

AIRSPACE

Dave Tustin
581 Lodge Avenue
Winnipeg, MB R3J 0S7

SPORTING

Colin Bantin
1374 Avenue Road
Toronto, ON M5N 2H4
(416) 483-9608

FLIGHT TRAINING & SAFETY

Ian Oldaker
135 Mountainview Road N
Georgetown, ON L7G 3P8

Mbrs: Robert DiPietro

Wilf Krueger
Al Sunley
Hal Werneburg
Ulli Werneburg

Mbrs: Mike Apps

G. Eckschmiedt
John Firth
Denis Gauvin
Fred Kisil
Alex Krieger
Chris Purcell
Manfred Radius
Richard Vine

CONTEST LETTERS

Robert Binette
3819 Berri
Montreal, PQ H2L 4H2

FAI AWARDS

Larry Springford
45 Goderich Street
Kincardine, ON N2Z 2L2

FREE FLIGHT

Tony Burton
Box 1916
Claresholm, AB T0L 0T0

FAI RECORDS

Russ Flint
96 Harvard Avenue
Winnipeg, MB R3M 0K4

HISTORICAL

Christine Firth
542 Coronation Avenue
Ottawa, ON K1G 0M4

STATISTICIAN

Dennis Miller
108 Midcrest Cres. SE
Calgary, AB T2X 1B5

INSURANCE

Bryce Stout
2244 Belfast Crescent
Mississauga, ON L5K1N9
Mbr: Al Schreiber

TECHNICAL

Herbert Lach
330 Banting Street
St. Bruno, PQ J3V 1Y3

MEDICAL

Dr. Peter Perry
695 Coronation Blvd
Cambridge, ON N1R 7J9

TROPHIES & CLAIMS

George Dunbar
1419 Chardie Place SW
Calgary, AB T2V 2T7

Mbr: Dr. W. Delaney

WORLD CONTEST

Al Schreiber
3298 Lone Feather Cres.
Mississauga ON L4Y3G5

METEOROLOGY

Larry Hill
Box 234
Kars, ON K0A 2E0

Mbrs: Hal Werneburg
Bruce Finlay

COMING EVENTS

6 January, **Glider Pilot Ground School**. Ten Wednesday sessions, 7-10 pm Bathurst Heights Secondary School, Toronto. Registration (416) 789-0551. Course instructor, David Beamish (416) 252-9901.

4-6 March, **1988 SAC Annual General Meeting**. Ottawa, Delta Hotel, 361 Queen Stret, K1R 7S9. 1-800-268-1133. \$55 s or d, indicate SAC.

28 June - 3 July, Ontario Regionals, Pendleton, ON Warm-up for Nationals using many of same turn-points. Contact R. Mercer, Box 636, Hudson, PQ J0P 1H0, (514) 458-4627.

16-28 July, **Canadian Nationals**, Hawkesbury, ON Contact: George Couser, 735 Rivière aux Pins, Boucherville, PQ J4B 3A8. (514) 655-1801 (H), 647-7322 (B).

mid-July, **Western Instructor Course**. Exact week to be given later. Hosted by Winnipeg Gliding Club, Starbuck, Manitoba. Clubhouse and campground available. Send applications to National Office. More info from WGC. Harvey Bachman, Box 1255, Winnipeg, R3C 2Y4, or Ian Oldaker (416) 877-1581.

23 July - 1 Aug, **Cowley Summer Camp**, Cowley airfield, AB. Come to Canada's biggest annual soaring gathering. Large campground on field. Wave, thermals, XC, a lot of fun. Contact: Kevin Bennett (403) 949-2589 (H), 260-2935 (B).

NEW FACES



Mrs. Ella Gormley has been with SAC on a part-time basis since the spring. She has been primarily concerned with record keeping and the financial aspects of our affairs. Observes Ella, "Everything has its proper place." Accordingly, for many years she has kept an L-19 in her basement. She comes from an aviation oriented family and knows most of the glider pilots in the Ottawa area.

NOTICE

SAC has received a corporate rate and other benefits from BUDGET RENT-A-CAR. Cards have been mailed to all clubs, and any member may take advantage of this by contacting their club executive.

Fitness Canada logo

TAIL DOLLIES

Now available for all Jantar models and PIK series sailplanes.

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1480 West Compton Boulevard
Compton, CA USA 90220
(213) 631-2058

HELP THE OFFICE

If you are upgrading the computer equipment in your home or office, our National Office would like to talk to you. Our staff needs additional word processing capability to handle the existing and planned work on the SAC Membership list, manuals, etc. — and the single system we have is not enough.

So if the price is right on IBM compatible equipment you are disposing of (cheap or free), please contact our secretary, Nancy Nault, at (613) 232-1243.

1987 Accident Summary

1987 29 claims for \$211,000

1986 16 claims for \$139,000

These totals are hull only. An additional \$55,000 is being set aside to cover a possible liability claim in 1987.