# free flight

2/82 Mar-Apr



vol libre

# PRESIDENT'S MESSAGE

The thirty-seventh Annual General Meeting of our association will be taking place in Montreal on 19, 20, 21 March 1982. As has been the custom in the past few years, we will be spending Saturday morning discussing SAC programs, current and long-term. This is your opportunity to find out some of the background information that goes into SAC'S decision making on items such as the budget, licensing procedures, publicity, the calendar, the insurance program, competitions and more. Please make use of this opportunity for asking all the questions to which you or your club need answers.

Annual reports from all of the committee chairmen will be available on Friday night at the registration desk. This will give delegates a chance to read them prior to presentation on Saturday afternoon. The reports will not be read at that time, but questions will again be invited.

The motions being presented by the Board of Directors have been published already, together with the supporting background information. Motions from clubs or individuals will be presented after the motions of the Board. This too, is the time for any other new business to be raised.

The last item of business on the agenda is the election of the new directors. We have six zone directors, and two directors at large. Each director serves a two year term, and the terms are staggered so that each year no more than three zone directors and one at-large are replaced. This provides for much needed continuity. This year will be somewhat unusual, however, in that none of the four directors whose terms are expiring will be standing for re-election. Those of us continuing for another year will be sorry to lose some good thinkers, speakers, and writers. Lloyd Bungey (Pacific Zone) sees the possibility of other commitments in the next two years; Mike Apps (Alberta Zone) will be dedicating even more time to the Alberta Soaring Council, and Dave Collard (Prairie Zone) has moved out of the zone to Vancouver. Karl Doetsch (Director-at-Large, and Past President) is looking forward to a break from Board responsibilities, though he has offered to continue in his capacity as secretary-treasurer. I thank those gentlemen sincerely for their work during their terms of office and particularly during the past year. To Karl I am especially indebted for his frequent "on the spot" action in Ottawa when it became necessary, while I played the "absentee-landlord" in Winnipeg.

We look forward to the pleasure of meeting the four new directors in Montreal.

During the awards banquet on Saturday evening, the SAC Trophies and annual awards will be presented. It is unfortunate that, due to the vast size of our country, such a small proportion of the membership is able to attend this function, as it is our only national social event of the year to which all members are invited. For many of us who are fortunate enough to attend, it is an opportunity to maintain friendships made at similar gatherings in years past, or perhaps at contests in places far removed from our normal habitat. It is also the place for making those person-to-person links which make future correspondence by phone and by letter so much easier and more meaningful. This is an essential ingredient for a body like SAC whose nourishment depends on movement of information between a central organ in Ottawa and limbs so far removed.

On Sunday morning the new Board of Directors will be meeting while the rest of the delegates have a number of workshop sessions to attend. These sessions are again designed as information sharing sessions. We want your ideas and your questions.

See you in Montreal.

Russ Flint

Russ Flint
President

PS.
1981 proved to be something of a record year for record flights. There were more set than in any year since 1975. Seven new records were established on four separate flights. Three records were established on a single flight which is certainly an economical way of doing things. By contrast, earlier years have produced the following: 1976 – 5 records in 3 flights; 1977 – 4/3,1978 – none, 1979 – 2/2, and 1980 – none.

S.A.C.

# free flight

2/82 Mar-Apr

The Journal of the SOARING ASSOCIATION OF CANADA
Le Journal de L'ASSOCIATION CANADIENNE DE VOL À VOILE




photo: Oscar Boesch

**Cover**
Oscar's tie is a fat yawstring and an impediment to vision during his CNE aerobatic show.

# SAC BOARD MEETING

## Lloyd Bungey

OTTAWA, ONTARIO 9-10 JANUARY 1982
The January meeting is perhaps the toughest meeting of the year since many items for the AGM must be dealt with and cannot be deferred to a future meeting. January '82 was tougher than usual because of two other items of major concern — Insurance Policy and Instructor Ratings proposed by Transport Canada (TC) — both had arisen within the last month, both requiring immediate action.

**INSURANCE POLICY.** Most clubs had received copies of the 1982 Insurance Policy in December. The following clauses in one of the endorsements had aroused strong negative comments from some of the clubs.

In addition, a towpilot must have:
- a glider pilot licence or glider endorsement on his/her power licence,
- an annual flight check with an authorized instructor designated by the CFI in his club,
- a total of not less than 25 hours shall have been in aircraft of similar make and model being flown, including similar gear type (tricycle or conventional gear) and at least 10 take-offs and landings,
- no fewer than 10 hours in aircraft used for towing gliders and/or sailplanes within the preceding 90 days, or a check out with a CFI documented in writing.

Al Schreiter (Insurance committee) explained that these particular clauses had been as much a surprise to him as to the clubs, and in fact had been imposed on us by the insurer without prior notification. He had not become aware of them until late December and had already protested them. A motion was passed to direct the Insurance committee to seek the removal of the clause which required towpilots to having a glider pilot licence. The remaining contentious issues had already been very strongly protested.

**INSTRUCTORS RATINGS.** In early December TC had advised the SAC Instructors committee chairman that a TC committee was looking at all instructor requirements (power, helicopter, gliding) and had asked for a meeting in January. Subsequent inquiry revealed the following:

- TC have already formulated requirements, privileges, etc. for gliding class I, II and III instructors,
- Exams are specified for each class, presumably these will be multiple-choice exams,
- TC would administer the upgradings and exams (work days only),
- Grandfathers would be accepted under specified conditions without having to write the exams,
- TC are suggesting that renewals will need mandatory refresher course attendance (one week long, as for power).

In view of the severe consequences from the above licensing requirements, the Directors authorized an Instructors committee meeting in Ottawa in January to prepare a SAC position on the TC proposals.

**BUDGET 1981-1982 and 1982-1983** SAC Budget year: April to March; SAC Accounting year: January to December. This conflict is caused by the necessity of having an audited statement for the AGM and also having the budget approved at the AGM. Please use the separate Jan-Mar figures when comparing the financial statement presented at the AGM with the previous year's budget. Using the figures to date and projected expenditures for Jan-Mar, SAC should finish the Budget year with a slight deficit, but much lower than the $6,700 approved by 1981 AGM. This positive result is largely due to the Government grant we obtained (see 6/81 page 5). The unavoidable meeting of the Instructors committee to counter the TC proposals will mainly give us this deficit.

SAC will propose a balanced 1982 budget similar to that for 1981, with amounts adjusted for inflation; fees to rise by 12% (equal to inflation), thus $50 for a club-affiliated member. Without such increase (postage 60%, plus other rising costs) the same level of service could not be sustained. However, the same increase of revenue could be provided by a 12% growth in membership! *Substantial growth, therefore, is the answer to the increasing fees problem*. If every club was able to grow 10% in 1982 then we could escape major fee increases in 1983.

**1983 SAC CALENDAR** The '82 calendar was not published due to lack of suitable slides (see 6/81 page 5). With enough material for the 1983 calendar, it was decided to go ahead provided we are able to get commercial outlet commitment for a high proportion of the cost. We have had positive responses, and commitment by these outlets would make the project financially viable.

**FREE FLIGHT** *free flight* does not meet the requirements for Second Class mail; First Class is very expensive. The Directors will consider all suggestions for better and faster distribution, but cost must be reasonable (see also President's Memo in 1/82). Commercial advertising rates for *free flight* have been increased to recover the costs of the page space used, and also provide some profit. But this may rise above the limits of smaller suppliers of soaring equipment. Proposal: *free flight* run an annual "Directory of Canadian Soaring Equipment Suppliers" (see Notice in this issue page 4).

continued on page 19

**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 Royal Canadian Flying Clubs Association (RCFCA), 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 RCFCA has delegated to SAC the supervision of FAI-related soaring activities such as record attempts, competition sanctions, issuance of FAI badges, 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 reading 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, opinion, reports, club activities, and photos of soaring interest. Prints (B & W) are preferred, colour prints and slides are acceptable. No negatives will be used.

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 contributions to the magazine will be acknowledged on receipt. We will endeavour to say when it will be used. All material is subject to editing to the space requirements and the quality standards of the magazine.**



For change of address and subscriptions to non-SAC members ($15.00 per year) please contact the National Office.



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**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'Association Royale Canadienne des Aéro Clubs" (RCFCA – Aéro Club National Canadien), 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, le RCFCA 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 ne peuvent être utilisés.

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 adressée au directeur régional dont le nom apparait dans cette revue.

**Pour chaque article reçu, nous retournerons un accusé de réception et donnerons la date probable de sa publication. 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 ($15.00 par an) veuillez contacter le bureau national.

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5

# OPINIONS

## PROPOSED CHANGES TO NATIONAL COMPETITIONS

It is with considerable personal interest that I have been following the recent attempts by SAC to modify various areas of the national competitions. It is certainly gratifying to see that serious attention is being given to these matters after many years of comparative neglect. The efforts by Dave Marsden and Karl Doetsch are to be highly commended and hopefully will result in a comprehensive and useful set of guidelines tailored to our unique Canadian conditions ie. vast geography and not so vast numbers of competition pilots.

Having had the opportunity to participate in national and international competitions since 1964, please permit me to make some observations on a few of the topics raised in this and the previous issue of *free flight*.

A. FREQUENCY OF NATIONAL COMPETITIONS

The present system of bi-annual national competitions with regional competitions in the in between years was instituted in the early 1970's after a long and thorough process of opinion polling and discussions. Some of the major reasons for adopting this system were:

1) reluctance of most pilots to travel long distances every year because of cost and time required (even more valid today than in 1970),
2) absence of the top group of competition pilots due to their participation in the world competitions every other year. (This obviously gives somewhat unrealistic results in the national competitions). Regional competitions were hoped to attract pilots new to competitions and pilots unwilling to travel long distances to nationals.

I feel this system has worked quite well over the past ten years with perhaps the regionals needing a bit of a boost lately. I, therefore, propose that we continue the present system of combined Nationals every two years. To increase the status of the regionals I suggest that new pilots wanting to enter the nationals be required to first qualify themselves by flying in and doing well in at least one regional competition. This would also give these pilots valuable contest flying experience before entering a national contest. An added benefit would be the prevention of possible overcrowding at the national contest. This system of qualifying for the national competition through experience at lower levels of competition is practised world wide in many different sports and I feel we should seriously consider adopting a system based on these ideas.

The idea of splitting national competitions into class competitions held at different locations is, I feel, somewhat premature for our situation in Canada and might result in even more breaking up of our competition efforts when we should be working toward concentration and consolidation of our unfortunately meager resources in manpower and expertise.

We would also lose valuable contact with our fellow competitors, in my mind a very serious drawback since our get-togethers are too infrequent as it stands now. We have not yet reached the point where organizational problems (ie. number of entries) will prevent us from staging a successful contest by any interested club or group of clubs. If the entry numbers do become higher than could be properly handled, it seems to me the most logical way would be to tighten up the entry requirements in order to encourage the not so serious competitors to fly in regionals or club contests instead.

B. SELECTION OF NATIONAL TEAM

The present system of selecting the team through peer group evaluation has come in for some severe criticism in the last couple of years, perhaps rightly so. Any system based on subjective evaluation is bound to be affected by numerous factors, some of them detrimental to the hoped-for results. The proposed system based strictly on points earned during competitions is certainly most objective, although we must guard against the temptation to award points from competitions which are not really representative of the current status of competitions in Canada. I feel that awarding points from the two most recent Canadian nationals (perhaps in the ratio of at least 70:30) would reflect the comparative standing of our competition pilots in the most realistic way. It also means that points are counted only from contests that every competitor has a chance of attending. This would not always be possible in the case of regionals, foreign competitions or internationals.

The creation of a national squad similar to the described British system seems like a very good idea, almost too good to be true. I would probably like to see the number of squad members reduced to ten because of our smaller number of top competitors, but the basic scheme seems to hold a lot of promise as explained by Dave Marsden. Other means of raising our competitive abilities would be to have squad members fly in top foreign competitions as guests and inviting top pilots from other countries to take part in our competitions and related activities. Now if we could only raise enough money and make enough time available to accomplish all of these great ideas!

I hope my remarks will help set off lively discussion amongst interested pilots and will result in some positive contributions to the efforts of the SAC.

Hal Werneburg,
Calgary

## GLIDER PILOT MEDICALS

Ref: Report on CIVV Meeting 5/81 page 17 Medical Requirements. I am in close contact with Transport Canada Aviation Medical Officers who now understand that glider pilots are not "private pilots" for which stricter medical requirements are necessary.

continued on next page

I have had the privilege to show the Aviation Medical Officers our operation and took them up for a flight. They were impressed with the discipline and safe operation of our gliding clubs in Canada.

The fact that there is a "restricted licence" for glider pilots who do not fulfil the requirements for a glider pilot licence, enforces the point that Transport Canada looks at glider pilots in a lenient way. A restricted glider pilot licence is to be renewed at a yearly interval and allows the pilot to fly without the privilege to take passengers.

I wish to have it on record that I am strictly opposed to lifting the current medical requirements for glider pilots in Canada. They are necessary for our own safety and that of others.

Wolf-D. Leers
M.D., Ph.D., F.R.C.P.(C), Dip. Bact., C.P.H.
Transport Canada Civil Aviation Medical Examiner

## CLOCK CAMERAS COULD EASE COMPETITION ORGANIZATION

For many years now, there has been some discussion overseas on the possibility of using cameras which record the time of taking the photograph as a means of eliminating need for start gates. Now one country is going ahead and introducing such in a nationals. The following paragraphs are taken directly from "Australian Gliding" October 1981.

"Although Australia will not be the first to do away with the cumbersome and dangerous start gate in competitions, we may become the first country to use the simplest and safest starting system yet devised — the free-height camera clock.

Of course, there will be some complaints, especially from those who feel that the previous system worked to their advantage. However, the survey of competition pilots showed that a clear majority favoured this change.

The National Competitions Policy Advisory Committee has specified that camera clocks can be either the print-on type or the watch display type, and deliberately refrained from detailed specifications in order to give people the widest possible choice:

- any satisfactory device must be both as fair and as foolproof as possible;
- it must be so constructed that it is impossible to take a photograph without triggering the timing device (that is, photographs taken after the camera-clock is primed);
- it must be impossible to re-set the time device without first removing the film."

To date price has been a deterrent to the use of camera clocks. Now the Australians are producing a limited run for $120.00 (Aus) so it would appear that, for the practical do-it-yourselfer, cost need not be prohibitive.

This new experiment is, in my point of view, a step in the right direction. We, here in Canada, should watch this carefully as several of our difficulties with contests could be overcome by going the same route.

First and foremost, the use of the camera clocks would do away with the start gate and all its problems, the necessity of finding volunteers to stare into the sun for hours on end, the frayed tempers of the pilots missed as they cross the line or forced to orbit while 6 queue jumpers slip in ahead, etc.

Secondly, with fewer people needed to run a contest, the number of contests could be easily increased since the only requirements would be for a task committee to set the tasks, a steward to ensure the camera clocks were tamper-proof, and a scorer. If the camera clock were used to photograph the finish then the necessity for *non-contestants running contests* could be eliminated.

After much discussion, the Australian contest pilots decided that using a free height start would not give any pilot an unfair advantage since the thermals generally all top out at the same height at any given time of day and even now selecting a starting time is considered to be a part of pilot strategy. I fail to see that this logic will not be equally valid in Canada.

Since camera clocks should reduce the problems in obtaining the needed numbers of contest officials, I would like to suggest that our contest committee give serious consideration to the introduction of such into the Canadian contest scene. Ten years from now we may be wondering how we managed without them.

Lloyd M. Bungey, Port Mellon, BC

## OOs NEED TO SHAPE UP

The only sad note to the successful waveflight weekend at Cowley (see 1/82 page 10) was a lost Diamond altitude to one of the pilots because he was ignorant of the FAI requirements. What astounds me is that this pilot was an instructor, and had wave flying experience with a large eastern club. This pilot assumed, based on his experience at previous wave camps, that a barograph seal was not really necessary, and moreover that some Official Observer that had been around that day would sign off the barograph trace two weeks after the fact! These assumptions were a poor reflection on the competence or attitudes of some OOs he had been previously associated with.

On the same weekend, another pilot was penalized over 1000 feet on his altitude gain because he did not notch his barograph on release. This slip occurs often in the heat of the moment; what is also important is that this pilot's OO was remiss in not observing the launch and release times in order to assist in the accurate determination of release altitude in the absence of a clear low point on the trace.

This "laissez-faire" attitude towards badge flight documentation is just *not* acceptable.

It is unacceptable because it devalues the achievement of a badge flight, not because it just disregards a lot of "red tape". Any badge flight should and must be the equal of any other, worldwide; a badge flight is an *international level of achievement*. Where is the accomplishment if the rules are bent or "almost met?"

The FAI Sporting Code defines the requirements. It can also be difficult to interpret. For this reason, the SAC FAI Rules and Procedures Booklet was written in an attempt to help pilots and OOs understand how these requirements may be met. So why isn't the word getting out to the troops? The unlucky Diamond pilot I mentioned before did not even know the Procedures Booklet existed.

**CFIs** It should be your job to make sure all your new pilots know that FAI badges exist and encourage them to go after them. You should have at hand the latest FAI Sporting Code, latest Procedures Booklet, latest Badge Application Forms, and understand them; encourage your badge pilots to get their own copies (and read them), and especially monitor the OOs to ensure consistently high standards are being held. Do you even know who are currently OOs in your club?

**OOs** You MUST know the Sporting Code and the SAC Procedures Booklet to do your job. Once you have agreed to monitor a flight, you have a large responsibility to do it completely and correctly. You have as much to do before the flight as after it, and you should make sure that the pilot knows what he has to do. Don't slack off and accept short-cuts from anyone, especially yourself. When a flight isn't done correctly, you can often be under some "friendly" pressure to okay it anyway. You know the pilot made the flight — right? But the pilot didn't do it right! Let him consider it an education, although possibly a time-consuming and expensive one.

After all the years the FAI badges have been around, maybe we need to be reminded occasionally not to take them for granted; otherwise it is a disservice to all pilots who do work so hard to achieve them.

Tony Burton
Past FAI Awards Chairman

## Good News from the Editor

Overseas magazines are reading *free flight!* New Zealand *Gliding Kiwi*, *Aviasport* (France), and Soaring (USA) have recently included *free flight* stories. We enjoy reciprocal agreements with above magazines, as well as *Sailplane & Gliding* (England), *aerokurier* (Germany), *Krila* (Yugoslavia), *Le Planeur* (Benelux) and *Australian Gliding*.

## Listing of Soaring Equipment Suppliers

SAC through the National Office is now inviting soaring equipment suppliers for their advertising. In addition, plans are underway to list all soaring equipment suppliers in a directory published annually in *free flight*. Each advertisers will be allowed 2 column/inches for a very nominal fee which is significantly less than the normal advertising rates.

Please contact the editor for more information; proposals are welcome.

# Oscar Boesch


After 42 years in flying one should have reached the golden touch for maximum performance. My addiction began in wartime as a fighter pilot when my life depended on skill and keen maneuvers — I probably still have part of it in my system. Of course, I like soaring and club flying and I've participated in many contests, but gradually by popular demand my activity shifted from chasing the clouds to the high-visibility air show scene.

It is a different type of flying, it changed from playful soaring to almost military drill. Punctuality to the second and confinement to a small stage area are basic rules. With graceful turns and maneuvers under the watchful eyes of spectators, the performer is expected to fly at his best, no matter what conditions or circumstances, he shall perform flawless and fearless right to the touchdown – without ever endangering anyone including himself, as watchful Transport Canada officials are observing. Every time he has to prove his competence which must stay sharp and consistent. One must keep in mind, most of the time the show site is unfamiliar and orientation without a practice flight is another challenge, it's called a cold take-off.

I'm glad to notice wherever I go, my performance is well received. Somehow the spectators never seem to get tired of it even though I have been performing many times in a row by popular demand, so far I have logged over 200 shows.

I appreciated the opportunity to demonstrate the fascination of silent flight, in contrast to the roar of raw power of the other airplanes. Sometimes I feel kind of humble to compete next to a million dollar aircraft with thousands of horsepower. But I have one advantage — I'm closer to nature. The beauty and majesty of pure flight will capture the crowd. For additional effect the music of "Born Free" is played, while the poem of "High Flight" is recited by Bill McVean, a radio personality and old friend; we met over Holland and Germany first, in 1944-45, he flew a Spitfire and I flew the Focke-Wulf 190 (I didn't realize then, that we were practising for airshows well ahead of time).

When I flew the CNE show in Toronto it resulted in the IMAX film "Silent Sky" (*free flight* 4/77) which has been shown over 3000 times at Ontario Place. In over 10 years of my "High Visibility" activity I have brought our sport closer to the people and I hope many have been, and many will be inspired to try their own wings. But I'm afraid it won't be long before my passengers say, "Why didn't we fly down a canyon, like in the movie?" □

Aerobatics are beautiful ... but it is not enough for the pilot to be fearless, daring, and determined to venture into abnormal flight maneuvers; in fact it could be like playing Russian roulette or plain suicide unless the pilot has carefully sorted out the ingredients necessary to make aerobatics safe.

In general, sailplanes are intended for soaring and gliding, only a few types have been designed and built strong enough to withstand excessive stress, and these are classified as fully aerobatic. Most ships are capable of basic aerobatics, ie. loops, stall turns, lazy eights (and spins). All these maneuvers have to be done within the limitations set by the manufacturer.

The aerodynamic quality of today's sailplanes is so perfect that in a nose down attitude the red line speed is reached within seconds. It sneaks up swiftly without any sensation or warning; the only indication is the needle on the airspeed indicator. As you know, the air resistance on the aircraft increases drastically as the square of the speed (at 150 mph the aircraft is subjected to 9 times the forces compared to flying at 50 mph). In combination with speed, the pilot has to control the amount of G-forces for the intended maneuver, which are in addition to the stress of speed, and the grand total depends on the ability of the pilot. In any case there is not much room for mistakes, the margin of safety becomes very narrow.

It is not only the sailplane that we have to be concerned with, it is the pilot who "rocks the boat". He must be able to control any situation he maneuvers himself into.

Let's pause for a moment and look at the difficulty a student pilot has at the beginning of his first flying lessons, just to hold the wings level, control airspeed and hold direction; much practice is required to get him solo. A similar effort is required to bring a pilot up to standard in basic aerobatics — he must learn how to cope with G-forces, airspeed limitations as well as physical discomfort and disorientation all of which are new experiences to him. Therefore he should first acquire as much experience as possible in basic gliding and soaring before venturing into aerobatic training.

I don't want to discourage anyone who has a strong desire to advance, but I feel an obligation to advise you to progress with the utmost caution after you have lined up some basic requirements. These include:

First, a sailplane suitable and airworthy for aerobatics. Second, a qualified instructor with an aerobatic endorsement, for dual instruction, and who will supervise your flights. Third, obtain the permission and cooperation of the CFI. Fourth, have the necessary airspace available (clear of other aircraft), remember the box airspace you require is immense and it must be absolutely "yours". It's your responsibility not to endanger any other aircraft. Fifth, the pilot must be aware of and obey the MOT regulations, as well as airport or club rules. He must also be competent to fly the aircraft within its limitations. *Do not overestimate your own skill!* Sixth, proceed with caution and greatest care.

Remember if anything goes wrong, there is only a very small chance for you to tell your story — in fact most high speed mishaps end up as fatal.

Aerobatics — often referred to as "ballet in the sky" is beautiful to look at, and from the pilot's viewpoint gives a great feeling of freedom and satisfaction. □

# THE 4TH GERMAN GLIDER AEROBATIC CHAMPIONSHIPS

## . . . a Canadian competitor's impression . . .

I consider glider aerobatics to be a beautiful and enjoyable part of our sport which has been neglected, unfortunately, in the past in North America. It takes considerable effort to prepare for a Championship but basic aerobatics should be included in every pilot's training.

Basic aerobatics comprise the easiest of all maneuvers which put the least stress on the aircraft. Besides the fun aspect, basic aerobatic training fulfills an important function — it is an advanced training which serves to improve the skill of the pilot and to further develop his sense of orientation in three-dimensional space. The pilot trained in this way will be in better command of the aircraft and be more at ease at the controls. Therefore, basic aerobatic training serves to improve flight safety.

*Aerobatics must not be self taught, because a spoiled maneuver attempt can overstress the aircraft. To learn safely, a qualified and competent acrobatic instructor must give the in-flight training in a two-seater sailplane certified for this purpose. Aerobatics is precision flying which requires a disciplined pilot with a mature attitude towards this great sport.*

There is very little written about glider aerobatics in North America. It was my third time that I competed in a German Glider Aerobatic Championship; being the only one in North America who competes in glider aerobatics, I want to give you a very brief recount on this event:

The Fourth German Glider Aerobatic Championship was held from September 2nd to 5th, 1981, at Linkenheim-Hochstetten, a small town near the Rhine about 85 km from Stuttgart. Luftsportgruppe Kernforschungszentrum Karlsruhe e.V., the host club which held this event in 1977 again, made its superior facilities available.

Thirteen pilots competed in the Championship, including eleven from Germany, as well as Switzerland's present champion, Hans Jörg Nebiker, and the author, a Canadian resident.

Ten of the competitors flew the Lo-100, the wooden glider with a wing span of only 10m. It is still regarded as the best aerobatic glider in existence, although a somewhat modest performer as a sailplane. This plane was built first in 1952 and is a direct descendant of the little Lo-105 flown originally in 1935. The aircraft weighs a mere 145 kg and has a red line speed of 290 km/h. Having neither spoilers nor dive brakes, it utilizes flaps for landing.

The other three pilots flew the H101 Salto, the V-tailed all fibreglass sailplane derived from the very successful Libelle. A highly maneuverable aircraft with a wingspan of 13.6m, it weighs 180 kg, has a red line speed of 280 km/h and a glide ratio of 1:35 without the available wingtip extensions.

The jury chairman was Rudi Matthes, an aerobatic gliding expert for many decades now and a judge in earlier Championships. The judges were — Victor de Beauclair, Hermann Fuhrer from Switzerland, Theo Heckmann, Erich Hezel, and Heinz Clasen, the developer of the Alpha-Katalog rating system used in the Championships. A very experienced panel, they provided the competitors with an excellent evaluation team.

The maneuvers were judged under rules established in previous Championships. The designated airspace consisted of a cubic kilometre with its base 200 metres above ground level, marked by large sheets on the ground. The start of each sequence followed a tow into the wind along the centreline of the top of the cube. The penalty for leaving the cube was 30 points for each occurrence.

Assessment was on a scale of 0 to 10 multiplied by the coefficient for the maneuver taken from Clasen's Alpha-Katalog. Points were awarded also for the variety of maneuvers, use of airspace and harmonious flow. No points were awarded for incorrect maneuvers and those which were in the wrong direction or out of sequence. After the points awarded by the highest and lowest scoring judges had been eliminated, the average of the remaining three judges' scores was calculated.

**MANFRED RADIUS**

A Toronto resident, Manfred first started gliding in Hamburg, West Germany, in 1961. In his more than 20 years of gliding, he has logged over 2400 glider flights and has gained his Gold C, Diamond height, and Double-Lennie pin. Manfred is one of Canada's few instructors who is actively teaching glider aerobatics.

Canada's leading glider aerobatic pilot competed in previous German Glider Aerobatic Championships. In 1977 and 1979 he flew the H101 Salto; in 1981 he flew the Lo-100, a glider he had only flown once before, in 1977. Manfred placed 9th in the 1982 Championships. Congrats for a good show in a tough competition. Manfred is also an experienced skydiver with nearly 500 jumps to his credit. In winter he enjoys alpine skiing and amateur ski racing.

During the briefing on the morning of September 2, the sequence of the first two flights was determined by draw. The first flight, the First Known Obligatory Program, started after a two hour delay on a cloudless day but in conditions so hazy that the horizon was not visible. Figure 1 shows this program in symbolic form, and describes what each symbol means. Winner was Hubert Jansch, a professional instructor at Oerlinghausen, the world's largest gliding school.

The opening event was followed by the first of the two Unknown Obligatory Programs. Winner was Peter Hermann, followed by Gerhard Heiner and then the author in third place. Each of these pilots flew the 27 year old veteran Lo-100, "Lollo Salzmann".

The final round of the first day was the First Freestyle Program; a sequence which gives the competitor the opportunity to demonstrate his skills both as a pilot and in designing his own program. Again, the winner was Hubert Jansch, giving him an early lead in the overall standings. Second place was won by Gerd Ottensmann, flying the Salto, while third place went to Josef Eberl.

The second day of the Championship was again hazy and without a visible horizon, so important as a reference line in aerobatic flight.

First event of that day, the Second Known Obligatory Program, was won by Hans Jörg Nebiker, the Swiss Champion, followed in second and third places by Josef Eberl and Hubert Jansch respectively. The Second Unknown Obligatory Program was won by Hubert Jansch followed by Dieter Wasserkordt and Josef Eberl.

September 4th, the third and last flying day of the Championship was a fine day with improved visibility and large cumulus clouds. The Second Freestyle Program, which is a duplicate of the first freestyle flight was the final event for most competitors. With a brilliantly flown program, Jansch again proved himself a master. Second was Bruno Walz, (who had flown the hair-rising beat-up in Paderborn, on cover photo 4/81; ed.) followed by Peter Hermann.

The six pilots who had accumulated most points overall then went on to the final event in which they again flew their own freestyle programs.

Jansch who won his fifth round out of seven was followed by Peter Hermann and Bruno Walz.

This secured the new German Glider Aerobatic Championship for Hubert Jansch. Spectators had hoped to witness a duel between Jansch and Helmut Laurson, the winner of the two previous Championships, but he did not compete is time.

In second place in the overall standings was Peter Hermann, who won his Bronze four years ago and his silver at the last Championship. Third place went to Josef Eberl, and Bruno Walz placed fourth.

The Swiss Champion, Hans Jörg Nebiker, placed fifth, and was followed in sixth place by Gerd Ottensmann.

While the Championship was being held, the club hosted also the Second German Glider Aerobatic Competition, a competition designed to give less experienced aerobatic pilots an opportunity to compete in a simpler program consisting of positive maneuvers only.

The closing ceremonies took place on September 5th, at 5:00 pm, with final speeches and presentations to the 24 entrants in the Championship and the Competition.

A hearty vote of thanks is due to the members of the host club, as well as to the jury and their assistants. The smooth operation of the events which allowed the competitors to fly under such excellent circumstances was due to this dedicated group of aviation enthusiasts and to their willingness to work so hard for others. □


The Lo-100

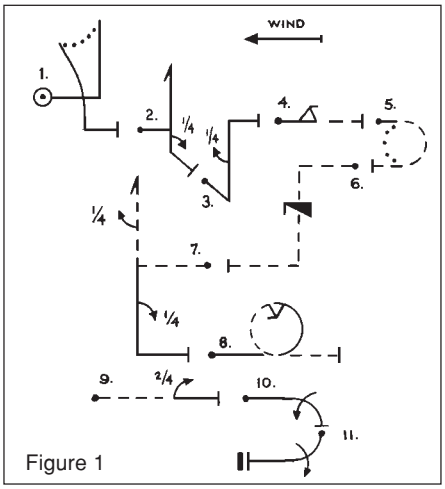



Figure 1

**KNOWN OBLIGATORY PROGRAM #1**

1 TAIL SLIDE FORWARD.
2 STALL TURN WITH 1/4 SLOW ROLL DOWN.
3 VERTICAL CLIMB WITH 1/4 SLOW ROLL.
4 1/2 INSIDE SNAP ROLL.
5 180° INVERTED TURN.
6 1 INVERTED SPIN REVOLUTION.
7 INVERTED STALL TURN WITH 1/4 SLOW ROLL UP AND 1/4 SLOW ROLL DOWN.
8 LOOP WITH 1/2 INSIDE SNAP ROLL ON TOP.
9 2-POINT HESITATION ROLL.
10 90° ROLLING TURN WITH 1 SLOW ROLL INSIDE.
11 90° ROLLING TURN WITH 1 SLOW ROLL OUTSIDE.

*Note: dashed lines in Figure 1 denote inverted flight*

# MORE SAC AWARDS

## Roden Trophy

In 1947, Mr. Barclay Roden, an engineer employed by Canadair, donated to the Association a trophy to be awarded annually to the club demonstrating the best utilization of its gliding equipment.

The original rules governing this trophy were based upon the use of equipment available at that time. However, also in the rules was a requirement that the rules should be reviewed from time to time and modified if necessary. The present rules were established in 1978.

Each year, every member club is mailed a request for its flying statistics for the year. Those clubs responding to this request prior to the deadline have their statistics evaluated under the formula

$$R = \frac{F+10H}{10(G+1)} + \frac{20(S+2D)}{10G} + \frac{L}{10(T+W+.5)}$$

where F is the total flights in club gliders, H is the hours flown in club gliders, G is the number of club gliders, S is the number of first solos, D is the number of 5 hour badge flights, L is the total launches, T is the number of towplanes and W the number of winches.

The Statistics and Trophies committee carry out this evaluation and the club scoring the highest value of R is the winner of the Roden Trophy for that year. This Award is made at the AGM.

**AWARDS FOR OUTSTANDING FLIGHTS**

**BAIC Trophy**
This trophy was donated to SAC by the British Aviation Insurance Company and is awarded annually (at the AGM) to the pilot making the most outstanding flight of the year. It was first presented for 1947.

**Canadair Trophy**
This trophy was donated by Canadair Ltd. and is awarded annually to the pilot making the best 5 flights of the year. It was first awarded for 1963.

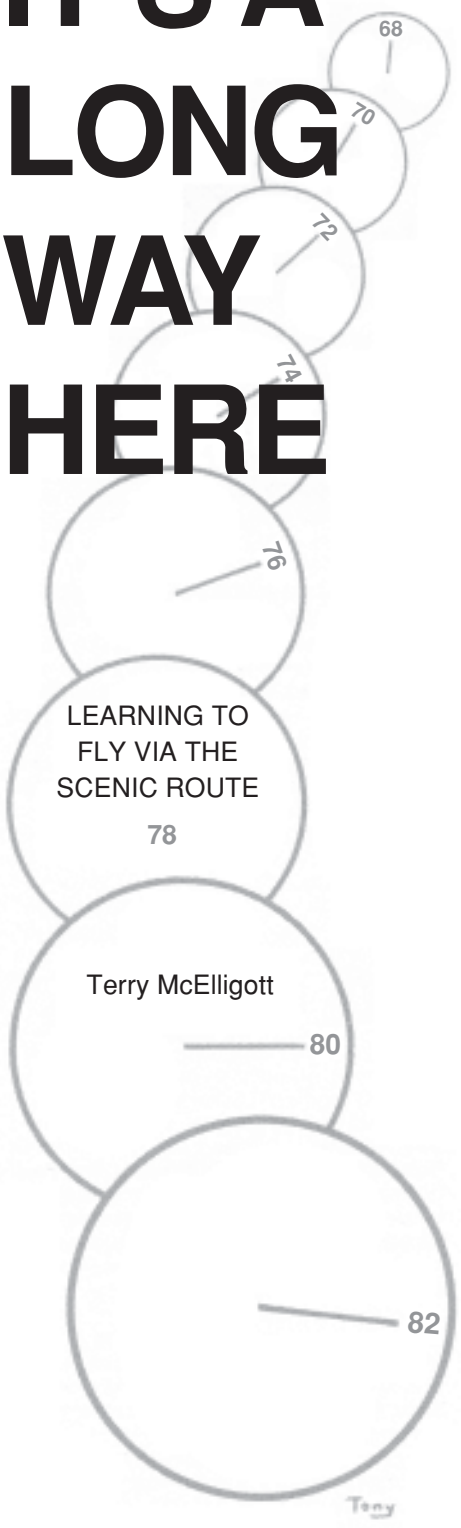
**"200" Trophy**
This trophy was donated by Inger and Paul Tingskou of the Winnipeg Gliding Club for annual award to the pilot with less than 200 hours total gliding time at the start of the year and who makes the best flights of the year. It was first presented for 1969.

Each of the above three trophies is scored under a formula which awards 1 point per km for free distance, 1.25 points per km for distance to goal, and 1.50 points per km for triangles and O&R.

Incomplete tasks are scored by a modified formula. Altitude flights are scored 1 point per 50 m. To be considered, the flights must be reported to the Trophy Flights Recorder and supported by documented evidence as required by the Sporting committee.

**Record Certificates**
Pilots establishing Canadian Records receive Record Certificates which certify the record. These Certificates are forwarded to the recipients immediately following certification of the record. □

# IT'S A LONG WAY HERE




Around half-past December 1980, the envelope arrived. It was raining, and my dog barked at the mailman (letter carriers aren't that common a sight these days and the dog always feels obliged to woof at least once at every stranger).

The envelope, please ... A little blue card. A glider pilot licence! MY Glider Pilot Licence!

Somehow, after twelve years of trying for it, I thought its arrival would be somewhat less understated than that. Silly me! As a kid, I used to pause to watch the yellow Piper Cubs fly overhead, and the Flying Boxcars, DC-3s, -6s, and -7s. Then all the turboprops, and then jets. By the time 1968 rolled around I was really bored sitting on the ground, so I hitched a ride out to Hawkesbury and got a half-hour ride in a Blanik. When I got home, I dashed out to the bank to see if I could afford membership, and then stopped off at the bookstore where I found a book or two on soaring, which I read during the next week. The following Saturday, I hitched a ride back out to the field and signed up.

It didn't take long to figure out that learning to fly required a car, and before long I copped a more-or-less regular ride to the field. Trouble was, by the time I got from my house to the pick-up point and then out there, it was just about time to go home. I usually got there guaranteed sixty-seventh in line to fly, and just before I had to leave I'd get into the old 2-22, serial number eight, I believe, and manhandle it around the patch once. Both hands, white knuckles.

Shortly after that, the season ended and my ride dried up. In 1969 I got a summer job in a photo lab where I made a lot of money: fifty-five bucks a week! Imagine! After a couple of months, I thumbed my way back out to Hawkesbury and smooth-talked my way up to number twenty-nine in line to fly, but at least that way I got up twice. The season ended and I was flying the thing with only one sweaty hand on the stick and I was touching down just a few hundred feet past the selected point. It was a long walk, but an even longer triumph! But there had to be a better way! Since I was really tired of thumbing a ride out there I sadly concluded that I'd just have to wait until I got a car, which at the time seemed as far off as the moon.

One spring day in 1974, out in the country, I saw some birds circling under the most inviting cloud you've ever seen. One of them was not flapping. I looked really closely; it was a Libelle ... my favourite flavour! It circled overhead and then flew out of sight and all I was left with was my award-winning sky and a memory. The very next day, I started shopping around for a car and a week later I drove out to Hawkesbury in my Austin Mini, signed the cheque for the membership and I was back in the game, except that a couple of months later the boss told me that "henceforth ye shall work weekends!" What a pie in the face that was. I managed to get a compromise but it took a while to do. I'd been going out to the field with a friend of mine and by the end of the season we were both just about ready to solo and they sent him off first. Well, he overshot his base leg, turned around sharply, sensibly lowered the nose to avoid stalling but the resulting aeronautical waltz was, not to put too fine a point on it, distressing to observe. As luck would have it, he landed safely and was only a bit stunned. The two of us high-tailed it out of there to settle our nerves and we may have even taken strong drink later on. It began to snow soon afterward and we all know what that means.

During the early part of 1976, I was at a housewarming where I was introduced to a chap who was taking power lessons.

Me: "Gosh, that must be really expensive!"
Him: "Well, yes ... but it's tax-deductible!"

Hmmm. Not only that, but you don't have to land after fifteen minutes of air work. You can do a lot of circuits in just one hour. You can pick an instructor who'll know what you're weak on — which in my case was everything.

Armed with the facts and the knowledge that it couldn't hurt, off I went. The first thing my instructor told me was that I ought to cool it until I had the cash, so I did, and it took a surprisingly short time for me to save nearly the full amount. The following winter and spring, it was as if my stumblebum flying career had a valve job. Before I knew it, we were talking full spins, VOR, unstable air! Even forced approaches, which, considering my intermittent soaring, were remarkably easy. Suddenly it became clear to me that I was going to solo soon. It had been almost eight years since those first shaky steps out at Hawkesbury. Right then, in the summer of 1977, the old hand of fate waved its fat index finger at me. Some guy I'd never met is pitching me on the phone to come and work in Toronto. Don't they still close it down on Sundays? They don't? When do you want me? So, a couple of weeks later, I got a map and found all the flying schools. I had a total of twenty hours' dual in my logbook, and after five more I went solo.

To tell the truth, I found the experience a little anticlimactic. I knew what lay ahead: my first solo cross-country. It turned out to be a triangle from Brampton to London, Brantford and back. I got just a "little" lost but as things turned out, the plane and I performed pretty much like the book said we would. I felt like all the effort was worth it as I got closer to the Niagara Escarpment because I could see the red roofs on the Brampton hangars in the distance and I called Toronto FSS on 126.7 to close the flight plan. Then I joined the circuit and touched down, turning off at the intersection and shut it down at the pumps. The silence never tasted so good! But I still wasn't soaring. That magic word "thermal" was still "clear air turbulence" to me.

In the summer of 1978 I was out at Mosport watching cars race but things got a little dull after a while, so I started looking at the clouds again. Say, isn't that a sailplane up there? A few weeks later, I found my way out to Arthur and found York Soaring's field nearby. This time I had a car, money in the bank, free weekends ... all hard to get when you work in radio … but once again, it was late in the season. I explained to the instructor that I'd done a little soaring and that I had just got a power licence. He said that since it was cold there were no intro flights to do so we were up for over an hour. I'd never been in a thermal before and I was really surprised to see the ground move away so quickly. Then I tried one, but I fell out of it after a few hundred feet, but it was wonderful while it lasted.

Well, when I got home, I decided that first thing to do come spring 1979 was get back out there and join, so I did. Since I had a lot of travelling to do that year I only got in fifteen flights, but it seemed like a lot more at the time, since it was so much better than in previous years. Besides, in 1980, I went to England where I travelled to Kirkbymoorside, Yorkshire, where I was taken around the Slingsby plant and saw how the fabulous Vega is made.

(They glue them together!)

In 1980 I managed to solo and ultimately get that elusive licence. The longest flight I made that year was only forty-two minutes, but I was able to prove to myself that I was on my way to finding and then centering lift.

1981 arrived and I was out at York really early in the year. After a while I managed to make it obvious that this 2-33 jazz was fine, but I'd really like a crack at the big time: a 1-26! (Will the more experienced among our readers please stop laughing?)

Ace instructor, Seth Schlifer, checked me out. I caught on to exactly how pitch-sensitive the 1-26 is shortly after it lifted off. Whoops! It was a worthless day, overcast but really smooth; I took a three thousand foot tow and shortly found it to be the aeronautical equivalent to the Spitfire sports car I used to own: really responsive. When I landed, I decided right then and there that I was going to like this airplane.

I see here in my logbook that I did a lot of very short flights in the 1-26. Finally, one Friday afternoon I drove out to York Soaring on the off-chance that there would be someone around. Had I not slept in that morning, I may have done a five hour flight and a 1000 metre height gain. Opportunity knocked and I had a "do not disturb" sign on the door! It was half past two, and as I got towed off it occurred to me that the ride was bumpy ... we seemed to be getting there faster than usual. I let go at 2000 feet in a thermal and a short time later it said 5800 on the altimeter! Goodness me! I flew away towards Arthur, which at that altitude looked like moss on a rock, and ran into above 500 fpm's worth of sink. Recalling what the pros say about finding sink, I flew through it real fast and sure enough, I found good stuff on the other side, and caught the express bus back up to 5800 feet. Nothing ventured, nothing gained, right? I fiddled around up there for a few minutes, the lift slowly dropping as I approached the cloud base. I had my eye on a couple more likely looking clouds and I picked one, a little closer to Arthur, and as I drove over there I couldn't resist wondering if all the native Arthurites were aware of what was going on over a mile above them.

After all these years, me a soaring pilot! Several thermals later, I looked at my watch and was shocked to see that nearly two hours had elapsed and figured that I'd catch it from the folks on the ground for being so late. Not to mention the triple-rate billing for unauthorized flights of over an hour. It seemed to take forever to descend, and it was painful to ignore the lift I flew through. I had a little trouble finding the Initial Point from that altitude, but finally located it, and spiralled down over a nearby farm. To add insult to injury, I encountered lift on downwind, and when I landed I pulled it off the runway and did the old tire-on-the-wing trick, and sheepishly approached the van.

Me: Uh, I guess I was up a little longer than planned, eh?

Them: Oh, that's okay. Are you going up again?

Me: You mean I didn't have to land?? Them: Nope.

Well, maybe next time. Like I said, it's a long way here. □

# SPECTRE

## A NEW VARIABLE GEOMETRY SAILPLANE FOR CANADA

DAVID MARSDEN

The new 15 Metre racing sailplane developed from flight experience with Gemini and Sigma is finally beginning to take shape. There still isn't much to see physically but in fact the time consuming work of making all the little mechanical components has been largely completed and some of the more visible parts are now being assembled.

The wings are being made by ZENAIR at their plant at Nobleton just outside Toronto. Their expertise with metal aircraft structures and high standards of workmanship are important for the success of this project. The rest of the aircraft is being assembled in the University of Alberta Mechanical Engineering workshops.

The new sailplane represents a third generation design following Gemini and Sigma. It will retain the best features of both those aircraft (the ability to climb well in thermals in spite of rather heavy wing loading, and exceptionally docile handling characteristics when circling at low speed in rough air) and contains positive design features to overcome the shortcomings that appeared in these two experimental aircraft.

These were:

a. Too much drag in the high speed configuration.
b. Somewhat ineffective approach control on Gemini requiring exceptional pilot skill for short field landings.
c. The very high empty weight of Sigma making it only marginally competitive on scratchy days.

The wing incorporates a full-span slotted flap similar to Gemini and Sigma, and has the same wing section as Sigma. At full flap deflection (20°), the wing area is increased about 15%, and wing lift is doubled.

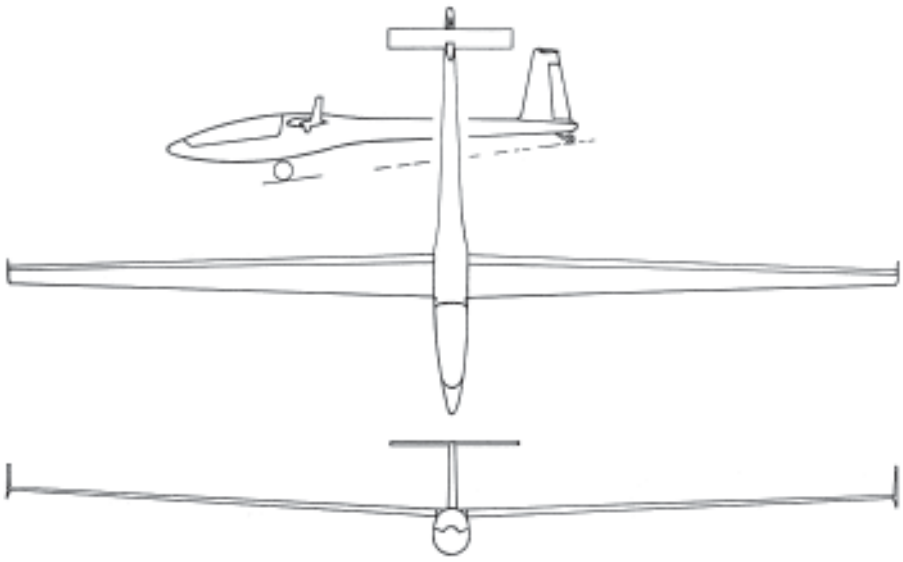
The new sailplane will weigh about the same as other 15 metre sailplanes. With its high lift wing it will have exceptionally good climb performance when flown without water ballast. Wing loading will vary from about 8 lbs to as much as 12 lbs when carrying full ballast. The ability to stay airborne in weak conditions will be one of its best features.

Particular attention has been paid to reduction of drag in the high speed configuration. The methods of achieving low drag in cruising flight are well known. Attention to fit of controls and sealing of air leaks in the wings are particularly important. A new type of aileron has been introduced that will have no more gap at the hinge line than any other modern racing sailplane, and has no external control horns of any kind. The full span aileron is driven from the fuselage, which greatly simplifies the control mechanisms. It should prove to be particularly effective for roll control at low speed with the flap extended. The wing/fuselage junction was carefully designed to eliminate air leaks into the wing. The canopy and wheel well are sealed as on other modern sailplanes and the retractable undercarriage even includes a retractable tailwheel.

Winglets will be standard equipment. A set of winglets made up for Gemini proved to be effective in improving its climb performance and low speed handling. Winglets are likely to appear more and more on all sailplanes but they are particularly effective on the high lift wings of variable geometry sailplanes.

Finally, the new aircraft will have conventional upper surface air brakes for approach control. These, together with an unballasted stall speed of about 30 knots, should make short field landings easy and safe.

Except for the front fuselage which is a fibreglass shell, the new sailplane uses all-metal construction. The wing skins are a sandwich construction with metal skins and PVC foam cores. If the aircraft is successful (can there be any doubt?) it will be initially offered for sale as a kit by ZENAIR. □



# BAIE ST-PAUL HIGH

**an account of the first Diamond climb in Eastern Canada . . .**

Alexandre W. Krieger

Surprise is the only thing you can be sure of in soaring — and this is especially true for wave flying.

The weekend of 12/13 September saw the opening of the wave camp 1981 at Baie St-Paul. A wave does not happen often at the end of the summer — or so we thought. I arrive at the field, we rig the Cirrus and Maurice takes off. It's windy, clouds and a window are visible, Maurice makes contact and reaches 8000 feet; a nice beginning for the camp.

A brilliant sun greets us on Sunday morning, as well as perfect calm. Not a whisper in the air. With Pierre we take it very easy at breakfast. I see myself enjoying a sunny day in stable air, with at most a few thermals at low altitude. I arrive late at the field, 0930, finish rigging the elevator and without any hope install the mask and check the oxygen.

And then suddenly, a breeze, the wind increasing with every minute. 10 minutes later I know I have to hurry — the rotor cloud has appeared. A short discussion with Maurice — I am the first to go. I run to the car for long johns, warm shoes and gloves. Maurice installs the barograph and while running we pull the glider to the northern end of the strip. I squeeze myself into the seat. Preflight checks done — instruments, radio ON, mask in comfortable position — and we take off on "runway" 19. Below me the bay, always impressive and exciting, a right hand circuit takes us back to the village. At 1000 feet I can feel the day is special. Turbulence is heavy but the new harness remains tight, SIR is easy to control and I begin to relax. The L-19 dances and dances and the tow requires good concentration. We go in and out of the wave and stillness alternates with renewed dancing. Then we really hit the rotor and, with stick all the way to the left side, SIR is barely under control. We have good altitude, 4800 feet, 5 miles NW of the field and I release. Right turn, then nose pointed to NW, I speed up to lose the recommended 300 feet and like by command the silky smooth calm takes over and the vario starts its staccato song. This absolute calm is, as always, unreal. The glider seems stationary, only the vario frequency increases and the altimeter needle moves, and moves, 6000, 7000, 8000, 9000 feet. Now the two hands reunite — the fascinating view you seldom see in summer.

So far lift has been encouraging, 3 to 6 knots, sometimes up to 8, the 10,000 feet reached 30 minutes after take-off. I begin putting on the oxygen mask since this is a lengthy procedure, adjust the fit, adapt the respiration rate, check pressure (1700 psi) and blinker — switch to mask microphone, all the while remaining at the same position with respect to ground. I have reached 13,000 ft, climbing at 5 knots. At about 11,000 I have broken out of the inversion into the transparent air, with visibility unlimited and an unbelievably deep blue sky. A regular mesh of cumuli stretches east and west with strong development in the valley — but no lenticular in sight.

Meanwhile the Kestrel 19 and the club Ka6 have taken off and a little later I can make them out in the window, floating over the dark green of the woods. I maintain my rate of climb but at 15,000 it deteriorates. I conclude that the wind must have increased with altitude and I see myself having been pushed downwind since I see the village below me through the clouds. I increase speed from 50 to 60 then to 70 knots to penetrate upwind where the Kestrel in much better lift is catching up with me. We approach 18,000, or FL180, I change frequency to 119.5, contact Quebec Terminal, reset the altimeter from 29.60 to 29.92. The Kestrel has reached my altitude and we remain stationary, side by side, with 1000 feet in between and in constant radio contact. This flight together has a great advantage: a sailplane at your altitude is the best vario. I feel I am too close and decide to put more distance between us. However I move too far and while maneuvering I lose sight of the Kestrel, I lose my lift and in no time I am back to 18,000 having lost over 1000 feet. This is discouraging and I see my chances for the Diamond evaporating. I need at least 21,300 feet, even without reserve for possible altimeter error, but with adjustment for altimeter reset.

Then some good news on the radio — the Kestrel is over 20,000. I search for lift in all possible directions, and although the best I can find is only 3 knots, I don't complain. The lift proves to be reliable and soon the two altimeter hands meet again: we are at 20,000. But then the Kestrel announces 23,000 and I get jealous. I recalculate the required altitude; a 21,800 will do and a 22,500 would be ideal. The lift slowly diminishes to 2 knots, then to 1 — then to 50 fpm. My tension rises, I force myself to control my breathing (hyperventilation!) and my scientific brain suggests to check my pulse. It's excellent, a calm 80. We reach 21,500 and I hang on. Then it's 22,000 and I hold the stick like balancing a dozen raw eggs. The altimeter stops at 22,400, exactly 120 minutes after take-off.

That's an average climb of 150 fpm — no 10-15 knots as you hear about Black Forest, Mt. Washington, sometimes Cowley — but then, who cares, it counts anyway. Also as compensation, this perfect enjoyable sunshine which keeps the canopy frost free (but with full ventilation) and the cockpit at just the right temperature, since I never needed those gloves.

It is time to concentrate on a new objective — get down as fast as possible to give Maurice a chance to repeat this climb. One last look outside and down I go with airbrakes full open at 80 knots. The valley is closed by dense cu but the window stretches 10 miles NE all the way to St-Urbain and I plan to descend along this opening to avoid the clouds. Now, obviously, I find lift everywhere and conclude that it certainly takes time to descend from 22,000.

At FL180 I contact Quebec Terminal and reset the altimeter at 29.60. I return to 123.3 MHz and advise Maurice on the situation reminding him to prepare the barograph and a fresh battery. Passing 12,000 I remove the mask changing to the boom mike. I have used 500 psi of oxygen, nearly 30% of the 38 cu.ft. capacity. Again a surprise awaits me: the clouds, seen as little specks from 22,000 feet, now reveal themselves as towers, forming a wall 4000 feet high and reaching the 10,000 foot level. The window is filling up at this end and I have to change my tactics. There is no room to fly full circles, but the ground and highway to Quebec City are visible between the clouds. This descent between the cus is unforgettable. Suddenly I am below cloudbase, at about 6000 feet, just above the north shore of the St-Lawrence river.

The airmass is completely different — humid, turbulent and hazy, visibility a few miles. I follow the shore line to the NE, Île-aux-Coudres appears in the haze and then Baie St-Paul. Under the next cu I hit 10 knots up in a turbulent thermal and it is difficult to find an acceptable down current. Again, when you need it, it's not there. Arriving at 2500 feet I see the tug taking off with a glider on 19. I do my circuit in strong turbulence and on final I notice that the wind has changed 180 degrees in two minutes. With good concentration I land with a 5 knot tailwind without problems.

Now we have to move fast — no time for celebrations yet. SIR positioned for take-off on 01; new barograph and battery installed, mask and oxygen checked. Maurice gets strapped in and I brief him where to find "my" wave. Meanwhile the wind changed ends again and now SIR takes off with 5 knots tailwind. From landing to takeoff in twenty minutes at the most.

Was it worthwhile? Very much so: Maurice gets the second Diamond gain of the day, and the second for Baie St-Paul. □

## THE WAVE SITE

The first wave flight attempts of members of the Quebec club go back to 1964 at Sugarbush. The old Estey field was used in those years and Claude Rousseau got the club's first Gold gain in the AIR-100. We went back in 1971 to the Warren field with the club's Ka6CR, CF-ZDT, Walter Pille missed his Diamond by a mere 500 feet. Still Sugarbush is a good five hours drive from Quebec City. The Laurentian mountains are next door and everybody could observe those magnificent

lenticulars stretching miles and miles come the October winds. All we needed was a suitable site with airstrip but without power lines, — this last condition being quite difficult to satisfy on the northern shores of the St-Lawrence river.

Following the north shore down river, 80 miles by road from Quebec City, Baie St-Paul is a natural site (see the Quebec-Edmunston aeronautical chart). Its potential for wave has been studied and a summary description appeared in *free flight* Jul-Aug 1974. A suitable field was found and an agreement arrived at with the owner. From 1972 on, come September, we moved one towplane and suitable gliders to Baie St-Paul, at the same time continuing our main operations at St-Raymond.

We soon found out that Gold climbs could be done regularly, but Diamonds eluded us. We had also to "legalize" our operation because a Diamond climb meant going higher than the 18,000 foot level and into controlled airspace. SAC and its Airspace committee had broken the ground with the Livingstone Block at Cowley, Alberta. Using the committee correspondence as a base, Maurice Laviolette prepared a data package for our application to the Ministry of Transport. A very fruitful meeting was held in Montreal with the MoT officials for Quebec Region and air traffic control, and an air block with a set of rules for high altitude flying was established. Within the block, flight operations with gliders are allowed up to FL230 within certain limitations and on condition that radio contact be maintained with Quebec Terminal Control. Since then these procedures with minor changes have worked to our mutual satisfaction and the cooperation received from MoT officials in Quebec and Montreal has been of the highest quality.

# A GLIDING AVIARY

Eric Newsome


'Aeronauticus Embryonicus Musculatum' is as far from 'Oopsicum' as can be imagined. He is confident, fearless and extremely strong. Several years of driving bulldozers and farm tractors have instilled in him the belief that any machine can be tamed providing you get a firm grip on the controls and demonstrate who is boss. His grip on the stick is so fearsome as to render the instructor helpless to correct errors unless he is prepared to push the control column with both feet. This is particularly troublesome on landing when it is necessary to modify Musculatum's habit of driving the glider onto the ground as though it were a bus. In spite of this, he often becomes a very good pilot when his touch has been gentled a little and he is a good flock member being particularly useful for heavy lifting around the nest.

Since beginning operations we had to change fields several times. The presently used airstrip is the best ever since it is oriented into prevailing north and south winds (runways 01 and 19). Located barely 1/4 mile off the shore (20 feet agl) of the St-Lawrence, the site is one of the most spectacular on the ground and from the air, especially on clear days. From 10,000 feet one sees 100 miles up and down the river, and from 15,000 feet Quebec City appears to be at one's feet. The navigation channel passes close to the north shore and the view of the ship traffic is in itself impressive. The surrounding mountains reach nearly 4000 feet and produce wave with W and NW winds. The shoreline rises steeply from the river to over 2000 feet and gives excellent slope lift from SW and NE-E winds. Under favourable conditions thermals of 10-15 knots are produced in the valley and wave has been contacted from thermals regularly. Finally, sea breeze effect has also been observed with stationary cu good for flights of several hours.

Frequent wind shifts, considerable turbulence and quickly changing conditions call for great care and make constant and efficient use of radio indispensable. Take-off and landing operations have to be well coordinated because width of the strip allows only one glider at a time. However at the field ends there is sufficient parking space for towplane and gliders and several fields all around are available in case of emergency — which has never arisen up to now. All pilots new to the site have to do at least two orientation flights in the Blanik and, if and when allowed solo, are required to progress slowly starting with easy flying conditions.

While Quebec City may be enveloped in rain and fog under westerly winds, there are often excellent wave conditions at the site. The foehn effect is very pronounced, producing cap cloud at the ridge separating the two places and air descending into the Baie St-Paul valley dries out and creates locally sunny and warm weather. Indeed the wave camp has to be terminated in November not because of local snow, but in order to return and land safely at St-Raymond at 580 feet asl.

Organizing the camp takes time and effort. List of equipment items is quite lengthy: wind sock and tow ropes, weak links and tie downs, gasoline barrels and hand pump, and so on. Not every year is successful. As the saying goes: the wave cannot be turned on and off. Disappointments are unavoidable and discouraging. But 13 September 1981, a beautiful Sunday realized our ultimate expectations and proved that altitude diamonds can be earned at Baie St-Paul. Many club members have contributed to this success and all should be thanked here. □

# SAFETY COLUMN

## TRAINING – HOW MUCH OF WHAT IN WHAT?

Eric Newsome

Safety must begin with training. Do we survive because of our training or in spite of it? Our training, as that of other pilots I would argue, is more a matter of custom and of tradition than of certain knowledge based on any realistic research. We do what appears to work with most people for what seems about the right length of time in a glider we have accepted as a training glider because that is what we were told it is supposed to be when we came to the club — and the club should know because it was what the manufacturer told them it was when they bought it. How the manufacturer decided that the flying characteristics were those most suitable for a trainer is uncertain.

For the past several decades trainers have been recognizable chiefly by their thick-winged, slab-sided ugliness, by their tank-like construction, and for their stable and ponderous performance. In this they have changed but little, but clearly the gliders to which the ab initio pilot will graduate with little, if any, further training after the solo stage have changed radically. If, as Ian Oldaker suggested in an article last June, (3/81, page 9) 'the first things that we learn, because of being first, are often impressed on our minds very strongly, often unshakeably, then it is just possible that going back to our 'roots' in insensitive trainers in a time of emergency, when first things often take over from logic, might not be too useful many years later when flying a sensitive fibreglass glider. Is this, perhaps, why very experienced pilots have apparently unexplainable accidents in high performance gliders?

Economics and the traditional outlook of many glider clubs makes the day far off when we shall finally admit that, in terms of glider manufacture, fibreglass is the common material and that the common materials of our current trainers are anachronistic. We should certainly be aiming our training toward the type of gliders pilots will graduate to fly, and it is possible that we shall eventually buy fibreglass trainers because no other kind is being built! I can hear the screams of, 'Fibreglass gliders are too good for training'; but if from them you are only going to fly fibreglass (or better) it might be that fibreglass trainers are the only ones good enough. Until that admittedly far-off day we should be looking at a basic trainer capable of at least reducing to some extent the existing performance gap.

Iver Theilmann of the Bonnechere Soaring Club really sparked this article by asking for information (1/82 page 3) on using more advanced trainers for basic training. To repeat — a basic training glider is what we accept as such — we are the problem as the student will accept anything he is presented with as being so. It seems that a basic trainer should be stable enough to give a student a reasonable chance of establishing control, but not so stable as to give no impression of the feel of the air. Controllable in slow flight, but not so docile that it will not effectively spin. Crisp enough to respond to corrective action in a way that gives confidence in spin recovery, but not so sloppy that anything, including letting go of everything and screaming for help, will result in a recovery, however inelegant. Responsive to control movements in all modes of flight without being over-sensitive, and capable of being flown at fairly high speeds.

Vancouver Soaring Association has been using Blaniks for initial training for several years and the Blanik seems to meet fairly the above criteria. I suspect that the Blanik was chosen rather more for the further possibilities it offered to experienced club pilots than as an ideal choice of trainer. Be that as it may, it is certain that some excellent pilots have been produced through starting on Day 1 on what, in some clubs, is considered to be a fairly advanced aircraft. It takes longer (minimum 30 flights set by the club) but that may well be due more to the difficult and sometimes violent conditions at Hope with which students must learn to contend than it is to the technical difficulty of flying the Blanik. And is longer necessarily bad? The often present ridge lift might mean that a pilot going solo for the first time after the mandatory thirty flights has between ten and fifteen hours of instruction. Lots of time to have met so many more of those things that eventually catch up with you in the air while there is still an instructor around to do a bit of explaining. Can we get away from gliders designed as 'trainers' for our students? Certainly.

Danny Webber, CFI, Lahr, in a Letter to the Editor (6/81) also makes the point that better training gliders are needed. In flying high performance gliders and in cross-country flying techniques, almost all current pilots are self-taught — with varying degrees of success. We must be self-taught in what we fly: how many twin-seat fibreglass gliders do we have in Canada? Not many (and that's no thanks to the good people who issue glider type approvals!) Do we not operate flying kindergartens where, with rare exceptions, formal training comes to an end with first solo?

Even with current equipment there is a crying need for a formal continuation of training after solo. The student can safely get a glider into the air and back down again — now is the time to develop smoothness, precision, and above all a self-critical attitude which will not tolerate a personal performance that is second-rate. Then get onto fibreglass two-seaters and we shall develop some fine pilots. Safe ones.

Sure it all costs money and the old trainers will not just disappear, but more and more clubs are looking ahead and making long-range plans. I hope they plan more on the basis of current reality than on the basis of current tradition. □

## ACCIDENTS SUMMARY 1976-1981

We have just completed a study of Canadian glider accidents for the period Jan 1976 – Nov 1981. Perhaps your readers would be interested in a synopsis of the findings which surfaced during research.

During the period, there were 76 reported glider accidents, 73 within Canada and 3 involving Canadian aircraft in the USA. These resulted in 8 deaths, 12 serious injuries, 12 minor injuries, 7 gliders destroyed and 68 substantially damaged. These figures include power gliders.

In the first 10 months of 1981, there were 10 accidents. This is about par for the course. Except for high peaks in 1977 and 1978 (20 and 19 accidents respectively) it has levelled out at about a dozen per year. The geographic locations were fairly well distributed according to population and glider activity. Ontario had 28, Quebec 13, Alberta 12, British Columbia 8, Nova Scotia 5, Manitoba 4, Saskatchewan 2, and Newfoundland 1.

The most frequent problems in descending order of frequency were: undershoots, stalls/spins, dragged wing, forced/precautionary landings, and loss of control. On a surprising number of these an instructor was on board. Many of the instructors were relatively inexperienced.

Among the causal factors, pilot attitude and judgement was by far the most frequent problem. This was evident in all phases of operation from preflight preparation and planning to airborne decisions. While we could dismiss some of this with low-timers, it is a poor excuse for the more experienced pilots. *Planning ahead, being alert to circumstances which influence your judgement and decision-making process*, and knowing your own limitations are big aids to avoiding accidents.

Let's face it, pilots don't expect to have a crash. When we make a decision we expect to be able to get away with it. The secret is leaving an adequate safety margin. Stretching the limits or taking chances reduces the margin, then the slightest problem can turn into an accident.

Clubs should arrange for a get-together with their Transport Canada Regional Aviation Safety Officer. He can help develop an awareness of the problems, thus making it easier to avoid them.

Ross L. Elliot, Aviation Safety Officer
Aviation Safety Bureau, Ottawa

### Eric comments ...

I distrust and detest statistics, their uses and misuses, and nowhere more than in the field of aviation safety.

The figures, baldly stated, in Ross Elliot's report suggested to me that I should get far away from gliding while still able to walk. The next day 'Canadian Aviation' arrived containing figures which suggested that the twelve annual accidents were possibly shared between almost four thousand glider pilots and that they, making up six percent of all licensed pilots in Canada, were contributing only one percent of the accidents. A crude use of statistics again which could lead to complacency but, hopefully, one which could keep alive concern and a determination to improve the score while yet maintaining perspective.

I do hope that Mr. Elliot, who no doubt has access to the reports which justify his comments and judgements in the latter part of the report, will write more on what is shown by the reports and how we can all work to remove the underlying causes of such accidents.

# COMMENTS ON LOW ALTITUDE SPIN RECOVERY

Gordon Hicks, MSC

The following is directed at those who happily do intentional spins at a safe altitude (3000 feet plus) in Blaniks and now fly Astirs or higher performance sailplanes. I certainly do not recommend flying at low altitude in a manner that might result in either an incipient or full spin but, should you be doing so, read on and at least maximize your relatively poor chance of survival. The SAC manuals and all good soaring books present spin recovery techniques that have been proven over the years. So why another article? What more is there to say? Well, a reading of a fatal low altitude spin, an apparent recovery and resumed spin of an ASW-20 reported on page 52 of the October 1981 issue of SOARING requires further comment.

SOARING has documented many low altitude fatal spins in various hot ships over the past few years. Often the pilots have high times in the type and in some instances mention is made that recovery was evident but then the spin resumed. The following comments, arising from my experience with slippery sailplanes, might help you consistently recover from a spin with the minimum possible height loss.

1. Remember when in a deep incipient or full spin in a long-winged and short fuselage sailplane the "out of turn" ailerons will not produce anti-spin moments and will in fact, if left on during the initial part of the recovery, produce so much "in-turn drag" that the conditions for a resumed spin are present. Remember the demonstration of initial adverse yaw towards the down-going aileron during early training. Place and leave the ailerons at neutral the instant an incipient spin begins; overcome the instinctive urge to stop the rapidly increasing banking turn with the ailerons. Note on page 52 of the October 1981 issue of SOARING "the witness described the tail of the aircraft as yawing and sliding during the descent". In my opinion this was the result of varying anti-spin and pro-spin moments and was likely not caused by the pilot moving the controls but holding on "out-of-turn" aileron rather than neutral aileron.

2. Remember, when an incipient spin starts at low height, instantly apply full "out-of-turn" rudder, neutral aileron and only that amount of forward stick required to stop turning. The amount of forward stick should have been previously learned at a safe height before you consider the type of flying that could bring on problems at low altitude. The amount and duration of forward stick has to stop the turn as soon as possible then immediately ensure that normal flying speed is resumed without use of dive brakes; this can only be learned by plenty of practice at a safe height under controlled circumstances with due regard for considerations of safe maneuver speed.

3. If your spin recoveries result in pull-out speeds close to or in excess of three times the stall speed and you are in the habit of opening the brakes to control your speed, you had better be warned not to get into a deep incipient spin under 1000 feet in a high performance ship, as you won't recover in time.

4. I beg you to perfect your technique of spin recovery and try to reduce the total height loss consistent with a full and final recovery.

reprint from "Downwind"

# SYMPTOMS OF FATIGUE

Dr. Wolf Leers
Chairman Medical Committee

The greatest danger of fatigue is that an individual may not recognize its effects. In most situations the symptoms of fatigue are more readily recognized by an observer. There are several symptoms that you should be familiar with:

1. General irritability, often characterized by a short temper and impatience.

2. Low morale and possible loss of motivation, mild depression and anxiety.

3. Short-term memory lapses, such as forgetting something you have just been told (wind change, runway change, etc).

4. Making simple mistakes, such as turning in the wrong frequency, misreading a navigation chart, having difficulty with simple calculations, improper preflight and prelanding check, forgetting to lower the wheel before landing, etc.

5. Timing and accuracy loss.

6. A tendency to accept a wider margin of error than normal, such as keeping proper altitude, or flying a marginal or low circuit.

What causes fatigue?

There are many causes of fatigue — such as loss of sleep, poor nutrition, noise, boredom, hangover, dehydration, physical exhaustion …

Disruption of your normal sleeping and eating patterns can upset your "metabolic clock" and induce fatigue. This is a well-documented fact among pilots who frequently cross time zones.

Visual problems and fatigue go hand-in-hand. Eye strain caused by sun glare, variations in light intensity between cockpit and the outside, and an empty visual field by scanning the sky for other traffic, commonly contribute to fatigue.

Noise is a major factor in causing fatigue in tow pilots. Fatigue results due to the need for pilots to pay strict attention to tow procedures and the glider on tow. There is psychological strain in towing.

Vibration in the frequency range of 18 –1500 cycle per second has a noticeable fatigue producing effect. A tow pilot should make every attempt to reduce vibrations.

Wide variations in temperature and humidity are known causes of fatigue. At altitude, the air inside the cockpit is drier than what you are normally used to on the ground. Glider ventilation systems require constant adjustment to keep the cockpit comfortable.

Dehydration during long flights causes fatigue. Water is lost at altitude due to the lower atmospheric pressure by evaporation without production of sweat. The pilot may not notice the fluid loss. Therefore, fluid intake on warm days and long flights is mandatory.

Boredom is another major cause of fatigue. One hour of boredom can consume as much nervous energy as an entire day's work. Boredom subtly induces fatigue and can cause the inability to react quickly to an emergency situation.

Pilots cannot afford to ignore the symptoms of fatigue and its many causes because failure to recognize them may cause an aircraft accident.

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PILOTS!!

We need more stories of your close calls or dumb moves. If it will help others avoid an accident, write. □

# BRUSH UP YOUR
# AIRMANSHIP

Ian Oldaker
Chairman Instructors Committee

We all yearn for spring again and for that new club high-performance glider no doubt. Have you thought about flying yet? What are you doing to prepare for the new season?

Perhaps you are avidly reading about soaring the Grand Tetons, or maybe re-reading some barograph traces from last summer's cross-countries. This is great — you are in some way preparing to get back into the frame of mind for soaring that has such an impact on our airmanship.

AIRMANSHIP — what is it? It includes reading and review of flying exploits — and here I include incidents and accidents — but mainly it is, I believe, a conscious assessment by each of us of the flying situations as they use, and of our ability to cope, using rational decisions. But wait, you say! How about thinking ahead?

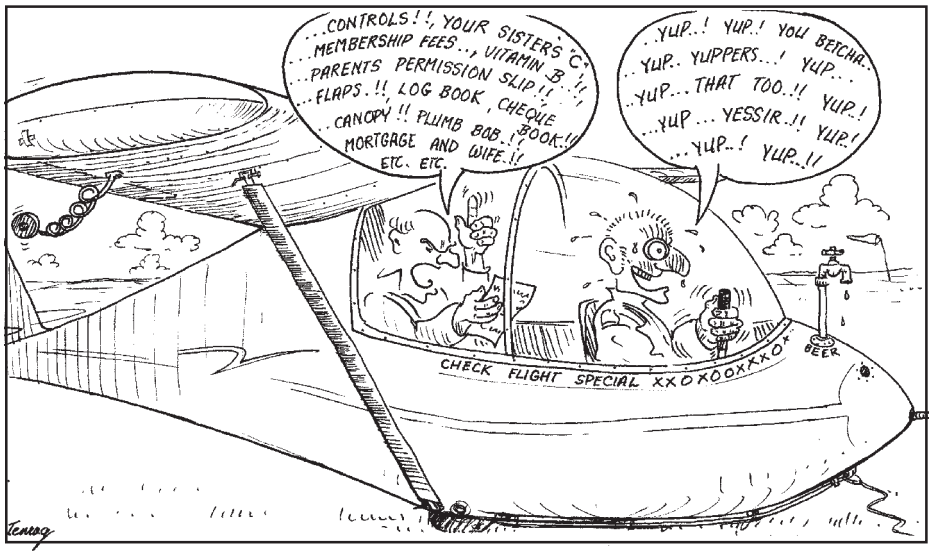
Glad you mentioned it. It is our PLANNING AHEAD that sets our airmanship above that of the other pilot. We are always looking out (are you?) — he never sees us. So we have to do the looking for him — right? And we are always planning, 5 minutes, 10 minutes ahead. Really experienced pilots have the whole flight planned — talk to some of them, it might be an eye-opener.

Clubs have rules which vary according to their experience, size, facilities, aircraft and so on. Private members are bound to follow these; slow down you may say — how come? Who am I to say to a private owner that he or she can or cannot do certain things provided no-one else is endangered?

Good question. However, think of this a bit more. If private owners tend to bend the rules and go off on their own to do their thing, saying that the rules are really just for the club members who fly the club ships, wouldn't our system soon break down? Communication between the different levels of pilot would decrease, the "club feeling" would be lost and airmanship in general in the club would suffer. You may be tempted to think sometimes "if he can do it, why can't I?" Maybe the rule needs amending! Or better yet, your airmanship should tell you that if "he" is doing what appears to be low circuits in his super Mini-Nimble, then that is no reason for you to do similarly low circuit attempts (because that is what they will be) in your 1-26. It is good to ask these questions because there are some insurance implications (even in non-SAC insured clubs) that suggest we should all have a proprietary interest in everyone's flying and airmanship!

But let's talk of RULES for a little. As a club develops, so should its flying rules. Rules, of course, are used to define and to help the flow of the flying operation, and to provide guidance for the flying advancement of all the members; for example ... "before attempting a cross-country flight from the club a pilot shall be checked out as follows ..." *Rules however don't replace good airmanship. The inner voice, the feeling, the knowledge of what you can and cannot do, of what your abilities and limitations are — AIRMANSHIP — that should be your guide.*

If you have yet to develop that inner feeling because you have not flown much, this is where the rules come in. Let's take this line of thought one step further.




At the start of the season do you take a few check flights? Do you do a few extra take-offs and landings just to get back into the feel of it? Or do you choose a day with light winds only, and then wait until they are right down the runway? If you do, or are tempted to do this, would not this alone be an admission that you feel insecure inside yourself, and therefore you are choosing an "easy" or "fair weather" day before flying. Your airmanship is telling you that a dual flight with an instructor is worth it. If the instructor is really experienced, so much the better because he will and should give you a couple of good check flights — you will be told where your weaknesses are and how to go about improving, so that you can avoid poor flying. (I hope you want to fly well!)

Some "rules" should perhaps be more correctly called guidelines, for example the rule may say 'gliders fly right-hand circuits, towplanes left-hand'. This then is the arrangement to ease the flow of traffic. So if you get caught low on the "wrong" side of the airfield what are you expected to do, a left-hand circuit? (Incidentally I trust you are equally at home doing both left and right-hand circuits). Nobody would want you to cross the field low, run out of height, ideas and airspeed in that order before contacting the ground when a circuit on the "wrong" side of the runway would have been fine. I hope you are free to exercise a bit of sensible airmanship.

Most clubs I know have flying rules, pilot's notes and other material for its members to read. Let's brush up now on our airmanship, re-read about hand signals, how to run the wing, parachute care (how about a repack now?) (see also page 16 this issue. ed.), special airspace restrictions, ground handling and aerotow and winching, signals and procedures so that we'll be ready for the season's start.

GROUND HANDLING needs watching. We still have problems with strong winds and handling the 2-33 to prevent it inadvertently taking off with no one in it! On the ground, tail low, these aircraft have a large angle of attack in any wind, consequently they can and do develop enough lift when you least expect it. There is no excuse for blowovers when people are around, and little excuse for inadequate tiedowns — let's include these considerations in our airmanship too.

Some club fields are small or narrow, others have the huge expanses of an airfield, sometimes shared with others. Each situation presents its own challenges, not the least of which is the need for a keen sense of awareness of the whereabouts of the other pilot, for hazards such as where is he going to land if you are only just ahead of him in the circuit. In other words we need to be constantly aware of what it takes to keep operating safely.

GOOD AIRMANSHIP IS THE KEY! Let's brush it up now, and improve it during the new season — let's all of us have a good and safe soaring season in 1982! It is worth the effort and it can be done! □

# The First Canadian Glider Pilot Licence

Christine Firth

*Our Historian, Christine Firth, is digging in the past of Canadian gliding. With many addresses in her pocket, and more collected on many little pieces of paper, she went from Ottawa to Vancouver for stories. Along the way, Chris met the person who had received the Canadian Glider Pilot Licence No. ONE, and who had indeed made the first Canadian records for height, duration, and cross-country. This person was a charming lady,* ***Evelyn Fletcher...***

## THE LADY WAITED — ALMOST A GENERATION BETWEEN EARNING & GETTING IT.

Here is Chris' recollection:
In a recent telephone conversation, Evelyn told me (just in case any of you present cross-country pilots scoff at her achievements) that every flight she undertook was a record attempt. Since in those days Canada had no National standards, this meant that she strove to best the height, duration, and distance flights of all the other Lethbridge Gliding Club members; she did not take off, get blown downwind, and land straight ahead, out of sheer foolheadedness. Other pilots tried to do the same thing, but they just weren't in the same class even though 99% of them were men!

Bruce Gowan of Calgary writes in his article "The Lethbridge Gliding Club":[1]

In the fall of 1936, Evelyn Fletcher became a member. From September 22, 1936 to July 20, 1939, Evelyn took on the task of keeping the club log books. During that period, she meticulously recorded every flight made by the club. There were two log books: one for the Primary and Gull Wing and one for the Hutter H-17. These logs provided an excellent record of the club's activity during this period.

Evelyn was not Alberta's first woman gliderpilot by any means. An all-women's glider club "The Skylarks" had been formed some five years earlier in Medicine Hat by Norm Bruce.

It was on May 14, 1938 that Evelyn made her first cross-country flight. She was able to stay aloft for 45 minutes, which enabled her to fly a distance of 8 miles. This flight set a new unofficial Canadian record. Evelyn was able to make two more cross-country flights on May 25 and June 2.

After the meteorograph (barograph) traces had been calibrated by the Meteorological Department in Toronto, Evelyn applied to the RCFCA for FAI Certificates. For various reasons, this application was not processed until 1960!

In July, Evelyn signed up to take her private pilot licence with the Calgary Aero Club. Her last entry in the log book was July 30, 1939. Evelyn expected to return to Lethbridge and gliding as soon as she completed her private pilot licence — but never did."

An article about her in Canadian Golden West magazine, Summer 1971, reads in part as follows:

"Tucked into the back pocket of her outsize pair of men's white overalls was the instruction book with the important parts carefully underlined in red so she could read them as she tossed about the sky. When the wind would vanish, she would come down, often as not in a field, and often she would have to walk home, covered in dust and mud or with a scratch on her nose.

Once the wind gave out over the jail and she managed to land on a nice patch of grass — but unfortunately it was inside the prison walls and the officials wouldn't let her out until her father came and identified her...

She became concerned with just how far she was actually flying. It seemed to her that her trips home were getting longer, so she started corresponding with Ottawa. She got the same reply from them that we often do now — a please-send-money note. So she did send money for a meteorograph and a barograph (?), which would officially record her flights, and also for a licence. They sent the instruments but wrote to say they had discovered glider pilots didn't need a licence, and kept the money.

20 years later Ottawa finally decided to license glider pilots in Canada. They opened their file and there was Ev's money for a licence. So they issued her Glider Pilot Licence No. ONE and sent an official out to present it to her at a banquet in her honour, for by then, Ev had already made aviation history. She had an officially recorded trip on May 23,1939, of sailing 10 miles, rising to a height of 4000 feet and staying up for 51 minutes. That was a new Canadian gliding record and it stood at the top for ten years."

Evelyn Fletcher went on to solo power (in 7 hours) and to get her commercial rating; she also married her instructor, the late Bill Smith (former C.O. of an RCAF Flying Training School and holder of the Air Force Cross). Evelyn just moved from Paris, Ontario to Oklahoma, USA. □


*Evelyn Fletcher sits in the Lethbridge Gliding Club "Hutter H-17". The club was also known as the "Skid Busters".*

[1] "The Lethbridge Gliding Club 1929-1939" will be published in Canadian Aviation Historical Society Journal, issue 1/1982

## FAI RECORDS

Russ Flint

The details of the two new Canadian altitude records set by Bruce Hea on October 31,1981 are as follows:

4.6.6 Gain of height (T) 7841 m (25,725 feet)
4.6.7 Absolute Altitude (T) 10485 m (34,400 feet)
Libelle CF-QJS
Cowley, Alberta

# SOME THOUGHTS ON SEAT CUSHIONS


PAUL PENTEK

Paul made his first parachute jump 29 years ago at the age of 16. He is still jumping and intends to make 30 jumps in one day on the 30th anniversary of his first jump!

Paul is a licensed Senior Parachute Rigger both in Canada and the USA. In Canada the licence is issued by the Canadian Sport Parachuting Association, in the USA by the FAA. He spent a whole summer in Oakland, California to learn the trade.

Paul returned to gliding in 1977 after 21 years of absence and has since flown 700 hours in gliders. He has an instructor endorsement and has earned the Gold badge with one Diamond.


Statistics do not present a strong case for wearing parachutes in sailplanes. The chances of having to jump from a glider in an emergency are 86,000 to one.[1] In the eight countries surveyed for this article, there were 27 confirmed bailouts in 12 years.

Why do we even bother putting on the seat cushion at these odds? Well, like most experienced pilots, I have had my share of near misses and close calls in the sky. I find it comforting to fly with an escape device on board, should anything go wrong. I believe in having a second chance. And I know that many pilots over the years have regretted during the last fleeting seconds of their lives not having worn parachutes.

The emergency parachute must be 100% reliable should the need arise to use it. It will be when three simple rules are accepted:

1. Modernize if you have an old parachute.
2. Maintain your parachute properly.
3. Learn how to use it.

Most of the military surplus parachutes used by glider pilots were designed and manufactured before or during the Second World War. In order to understand why these rigs are now unacceptable, I need to touch on the evolution of the modern parachute.

## HISTORICAL BACKGROUND

The few barnstormers between the two World Wars contributed a great deal in improving the early crude parachutes, but there were simply not enough of them. Not until the popularity of sport parachuting in the 1950s and 60s did we get the millions and millions of jumps that led to the development of the modern parachute. One by one, designs were changed in response to incidents and fatalities. Sport parachutists were the laboratory rats in those days.

The early designers had nothing to go on for experience in the 1930s and 1940s. Out of innocent ignorance they engineered potential malfunctions into their parachutes. Good example is the pilot chute with suspension lines (Figure 1). This pilot chute could entangle with the leg of the pilot during opening. Many unfortunate airman fell to his death with the canopy and the suspension lines forming a horseshoe-shaped mess above him. The problem was solved with the development of the coiled spring type of pilot chute.

Total malfunction used to occur when the pilot, in his haste to clear the aircraft, would bend the ripcord pin in the metal cone (Figures 2 and 3).

The early rigs had no canopy releases. Some rigs had the single point release which was patented in 1929, but proved to be unreliable in releasing the harness as long as the canopy was inflated (Figure 4). Pilots were dragged to death in high winds, and during the invasion of Normandy paratroopers drowned in three feet of water because they could not release themselves from the parachute harness.

The quick ejectable hardware was developed by the U.S. Navy for easy removal of harness in case of water landing or fire. They are now standard on all modern parachutes.

I could list many more points. However, I only want to get across one strongly felt opinion: GET RID OF YOUR SURPLUS HARNESS CONTAINER (Figure 5).

## PROPER MAINTENANCE

Modern certificated emergency parachutes are malfunction-proof providing they are treated like foldable flying machines and not as seat cushions. Your parachute should be serviced by a qualified parachute rigger who is current, and is rated for your rig. Sport parachuting is a highly transient sport. Do not trust your life to a 5-jump hero. Ask for the qualifications of the person who is volunteering to pack your rig (Figure 6). Ask to see his Parachute Technicians log book. Has he been checked out for your rig? If not, does he have a packing manual in his library? Does he have access to industrial sewing machines should repairs be necessary? Please, never let anyone pack

**Fig. 1** A relic of the past, yet this pilot chute was in the parachute of a glider pilot until 1978.

Can you visualize those suspension lines on the pilot chute entangle with your legs if you are not in the proper body position during the opening sequence? This pilot chute could cause a “horseshoe malfunction.

[1] Statistics covering five year period (1972-76) from Australia, England and West Germany. 35% of total flights reported was divided by the number of emergency parachute descents. 65% of the flights made are mostly training flights, especially winch launching in Germany.
Note: there were 76 fatalities during this period.

**Fig. 2** The wearer of this parachute would experience total malfunction (the container would not open). Metal cones have been replaced by nylon loops in sport parachuting.

**Fig. 3** John would have to pull more than 300 pounds to dislodge the bent ripcord pin from the metal cone.

Using two hands, the strongest parachutist was only able to pull 276 pounds.

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your parachute on the ground. That is all right for jump parachutes, but not for emergency parachutes.

## WHY THE REPACKING CYCLE?

The manufacturer usually specifies 120 days. My legal liability for servicing the parachute comes to an end on that day.

Round parachutes open from the top down by suction on the outside of the canopy. Little air enters the canopy at the mouth as it is rushing through the air, gets trapped up in the apex and bulges the top of the canopy. This bulge is sucked downward by the Bernoulli effect. During this sequence positive pressure at the mouth of the canopy is trying to keep it closed. Indeed, every round canopy can be taken up to its critical opening velocity. Beyond this speed the canopy will not open.

It follows that a canopy that was allowed to get wet, or one that has not been packed for

**Fig. 4** Ursula models a harness that lacks both canopy releases and quick-ejectable hardware. This harness is next to impossible to remove while the canopy is exerting force.

This harness caused many deaths by dragging the jumper in high winds and by drowning.

Your parachute should have either capewells or quick-ejectable hardware.

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long time, will have difficulty in opening. The canopy material must be dry and loose. This is one of the major reasons for regular airing of parachutes.

## OTHER REASONS FOR INSPECTION

Whatever can happen to parachutes has happened. My favourite story concerns the jumper whose parachute had crescent shaped tears on opening. Then he remembered that a horse stepped on his rig while it was lying on the ground. Had it been inspected in time, the damage would have been less substantial.

Sunlight destroys nylon. Wingtip weight duty in the hot July sun is asking for trouble. Insects can get inside the container. Some will chew their way out. Ants secrete formic acid that dissolves nylon. Volcanic ash from Mount St. Helens contains sulphuric acid which will corrode nylon. The list could go on and on. It is best to leave your parachute in its container when not flying.

## KNOW YOUR PARACHUTE

Disorientation and inability to react under stress are still major problems in sport parachuting. All we can do is drill and drill new students until they react in an automatic way should an emergency occur. The glider pilot making an emergency jump does not have the benefit in most cases of parachute training. He should. Plummeting towards the earth at 250 miles per hour with a sheared-off elevator is not the time to try to learn the location of the ripcord. Your reactions should be automatic.

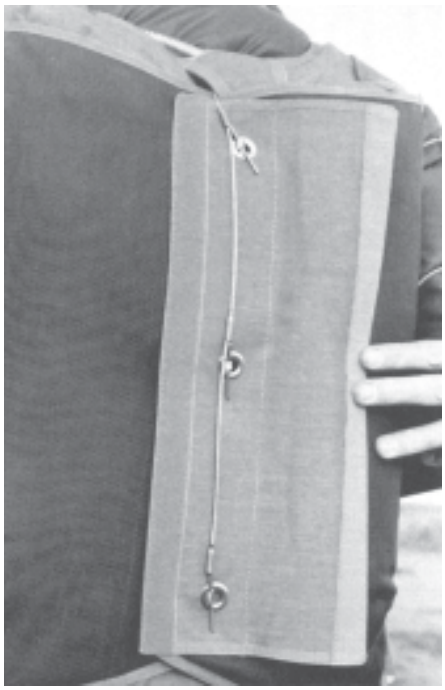

**Fig. 5** This modern, comfortable harness container assembly will accommodate both the 26 conical and the 28 feet military surplus canopies. Your own old canopy can be installed easily. At Cu Nim we replaced all of our old containers (4) for less than the price of a new Security 150.

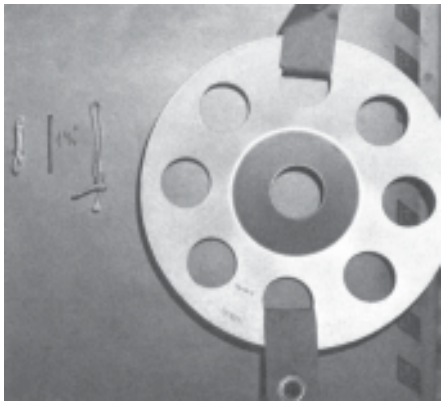

**Fig. 6** Pack closing loop on the left is factory made by Security. The one on the right is rigger made. It is much longer than it should be. At 1-1/4 inch compression the pilot chute spring exerts 30-35 pounds of force. What will it exert at 2 inches? At 2-1/2 inches? Invest $1.30 and get the proper loop if your rig is older than 1978. This kicker plate on the right was taken out of a Security 150. Security rigs don't need that!!

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## SHOULD YOU EVER HAVE TO JUMP,

just clear the glider and keep your body erect as you pull the ripcord. Bending over into a fetal position would cause somersaulting — right through your deploying suspension lines. By keeping your body erect you make certain that the opening sequence of the canopy is much faster than the barrel roll or whatever motion your body is doing. Close to the ground turn into the wind and put your feet together. Look at the horizon as you land. Roll as you land. In this day and age your only pain after an emergency parachute descent should be the loss of your sailplane. □

# The Canadian Contest Scene — 1982 and Beyond … Conclusion

David Marsden
Chairman Sporting Committee

## NATIONAL TEAM SELECTION

The following are three options to consider in the selection of our National Team:

### 1 A STRICT POINT SYSTEM

Points would be distributed between recent competitions on a weighted basis. For example, weightings might be 50% for the most recent Nationals, 30% for a Nationals preceding that, and 20% for the most recent Regionals or a foreign competition at the pilots option.

Points would be based on the ratio of a pilot's score to that of the winner of his Class.

$$\text{Points} = 50\,\frac{n1}{N1} + 30\,\frac{n2}{N2} + 20\,\frac{n3}{N3}$$

n1 = pilots score in most recent Nationals
N1 = score of winner of his Class
n2 = pilots score in previous Nationals
N2 = score of Class winner in that contest
n3 = pilots score in Regionals
N3 = score of Class winner in Regionals

A major advantage of this system is that it would provide an equal opportunity to earn points in any of the three competition classes.

This system will require every aspiring World Contest pilot to fly in every Nationals and Regionals. This is not a bad thing since the benefit of their experience gained in international competition is largely passed on to other Canadian pilots through their participation in our contests, and if they are to do well in international competitions they will need the practice.

A moderate weighting of 20% gives some encouragement to fly in Regional contests or to take part in foreign competitions. If National Team pilots are allowed to count the last World Contest as 20% they would not have to fly in the Regionals so they wouldn't have to fly a contest every year. Participation in a World Contest should only be given a relatively light weighting because the World Contest pilot should have to earn his place on the next team in equal competition with his current peers.

A disadvantage of a pure point system is that a pilot can get a lower score than his ability would warrant through factors unassociated with competition, such as a "DNC" for equipment problems. However, this is a hazard of any "high-technology" sport, and may encourage less risk-taking.

### 2 CONTINUE WITH OUR PRESENT SYSTEM

A seeding list is compiled according to placings in the two most recent Nationals. Pilots are asked to rank all others on the list.

This system is generally considered to have worked reasonably well. The main advantage of peer group evaluation is its flexibility to take into account a good showing in an older sailplane for example, or for subtle judgements of characteristics such as the ability to handle pressures of international competition. On the other hand, perhaps we should not be expected to make these kind of judgements on the character of our fellow pilots.

A weakness of this system is that pilots on the seeding list do not necessarily know each other. It is possible that two pilots may not have flown in any competition together, and it is possible that they won't have been in the same Class in any case. This system is also open to personal prejudices.

The main deficiency of our present system is the way in which the seeding list is selected. We need a system that will give an equal opportunity regardless of which Class the pilot flies in.

The seeding list should be kept down to about 12 names to ensure that only "serious" competitors are included and reduce the chances of one pilot on the list not knowing another.

### 3 FOLLOW THE BRITISH SYSTEM

A team squad of 12 pilots is selected at the end of a year in which an international competition is held, and would include the current international team with 8 more selected on the basis of a point system. These 12 pilots would be considered to be our team and would be encouraged to fly in as many competitions as possible during the following year. In particular, they would take part in Regional competitions and local weekend meets and act as cross-country and competition coaches where possible to pass along the benefit of their experience.

Team selection would be by a vote of the team squad members after the Nationals preceding the next international contest.

Advantages of this system are:

1. We will field a stronger team since the team squad are actively training for international competition and competing amongst themselves for a place on the team.

2. There is a better chance that the experience of the best cross-country and competition pilots will be passed along to the Canadian soaring community. Since these people are designated as the National Team they will be acknowledged experts and looked up to for advice and coaching.

3. The coaching function will make better pilots of the coaches.

4. Team members will know each other better when it comes time to vote. The fact that personal prejudices can enter into the vote will encourage members to work together and be cooperative in such things as team flying. This ability to work together will help make our team more successful.

5. With a designated team of 12 members it may be possible to organize competition workshops or training sessions with perhaps 2 or 3 team members and other interested local competition pilots taking part, or even all-out training sessions for the whole team.

6. The added prestige of being part of the official team will provide more incentive for our Nationals and Regionals competitions.

A disadvantage would appear to be that the team might be self-perpetuating. However, it will be an advantage to have members of our last World Contest team on the team squad to share their experience. The point system based on a limited number of competitions such as the one suggested under option 1 above will give everyone a fair chance to make the team every two years.

### GENERAL COMMENTS

During the past six months, I have actively looked for opinions on team selection from Canadian competition pilots as well as people in Germany and the UK. The British team coach, Brian Spreckly, was particularly helpful in explaining the British philosophy on team development which has had very obvious success in recent years. Most people felt that it would be a good idea to retain the flexibility of the peer group vote for team selection but that we should have a point system for selection of the seeding list.

### RECOMMENDATION

I believe option 3 is the best because of the way it would integrate our National Team into a system for improving the competition scene in Canada. It may be a little idealistic or even impractical in some respects, but I think we should try to establish as much of this philosophy as possible. Whatever system we select now will no doubt be developed further with experience. There is a pretty general consensus that we need to improve on our present system. □

# NEW FACES NEW FACES NEW FACES NEW FACES

DAVE PUCKRIN

Publicity Committee

I have reached middle age with a certain lack of flair or finesse; no dogs, one cat, and presently 1.5 children. The oldest child terrorizes Chipman gliderfield and is the exact definition of an airfield brat, knew what a Libelle was before she knew about dolls.

My wife hates all glider pilots — no exceptions — and feels we are all slightly crazy going around in circles.

I presently have a Jantar 2. Before becoming a fibreglass owner I had half a share in a BG-12. I have been involved in gliding for six year and before that flew hang gliders for a few years — I still carry the scars. I have neither badges nor great ambitions for such — just enjoy flying around the sky.

My wife Loretta is also my partner in a print business — this should help in the position as Chairman of Publicity. I will also be doing publicity for the Alberta Soaring Council.

## DAVE'S MESSAGE

If soaring is to be a viable sport we must grow in number. We need new people who will take some of the load off the old guard that has worked so hard for so long (let them rest for a few days, gain strength and come back).

We must get new interested people who will carry their weight, the clubs must learn not only how to find people but they must meet their responsibility to train and keep these people interested.

Although a majority of the general public will never fly a glider, more awareness of the sport should be generated. An analogy to car racing could be made — the difference is that car racing has much higher general profile in the public's eye. We have the Canadian Nationals — shouldn't we receive Canadian coverage of some sort? — Yes we should and yes we can, but it is going to need hard work by people at a local level to develop media and people interest in the sport so that we might expect national coverage.

Canada is well represented in the World competition and our representatives should receive the attention they deserve. Let's hope that they will and let's work towards that.

Every chairman of every committee will tell you that getting the job done depends on people in all the clubs. I will need key people in each and every existing club. If anyone is interested in giving a hand, please contact me at 12644-126 Street, Edmonton, Alberta T5L 0X7

I will start to set up this structure and hope to make it fun and not all hard work. I will develop press kits and posters and other base information and flyers — and you must keep me honest and see that I do it.

Let's get out and fly this year and get some new records not only in the air but in the number of new members and the quality of our clubs and our training. □

GEORGE ADAMS

Technical Committee

When we glider pilots run through our pre-take-off checks most of us give little thought to the difficult procedures under which approval was gained for the glider type we're about to fly in.

Winning that certification is a complicated task undertaken by the SAC's five-man Technical committee. Without this group, we'd all be on the ground.

Some 23 sailplane designs have been accorded "Type Approval" by Transport Canada since 1976. Those approvals coincide with **Jim Henry's** membership on the committee. As its outgoing chairman, Jim is ending a period in which the certification process has become increasingly involved. The time taken to approve some types has run as high as three years. (The very briefest took six months).

Succeeding Jim as chairman is another member of MSC, **George Adams.** A 47-year old mechanical engineer who has worked most of his life in aircraft design. George began gliding in 1955 as a member of the McGill University Gliding Club, which later became part of MSC. George works at de Havilland Aircraft of Canada Ltd. in the engineering stress department.

Needless to say, Jim has a warm word for George in the new post: "I'm certainly happy to turn over the job to George Adams knowing that he will do an excellent job of type certification."

Fred Rose
MSC *free flight* correspondent

## SAC BOARD MEETING . . .

**SAC INSURANCE** The 1981 accidents resulted in $90,000 in claims so it could be considered to be a "good" year. Hopefully, this will prevent rate increases for 1982.

**SPORTING COMMITTEE** The 1982 Nationals will be held at SOSA, July 1-10. A proposal has been prepared for the future selection of pilots for the "National Team". This will be a workshop topic at the AGM.

**1983 WORLD CHAMPIONSHIP** Oscar Estebany was appointed Chairman of the World Contest committee. Team selection for the 1983 Internationals is scheduled to be complete by 15 September. For publicity purposes the 1981 team remains the "National Team" until the successors are chosen. Because of the political situation in international sport we do not know whether there will be problems (both for funding and otherwise) but will review the situation if such arises. Present planning will commence on the assumption that a Canadian team will represent us in Argentina.

**SIX-YEAR-PLAN** The response was very good. It was decided to fix the event dates for two years ahead and have the last four years tentative (with opportunity for competitive bids). This will allow better publicity of events and will assist Provincial associations with their funding applications.

**MEMBERSHIP CARDS** In 1982 all membership renewals will be acknowledged by mailing the membership card directly to the member. *free flight* 2/82 Mar-Apr (this issue) will be the final issue to the members who do not renew.

**PROPOSALS FROM CLUBS** Missisquoi Soaring Association requested that the Directors consider holding the SAC AGM earlier in the year. This was refused since the current date had been established by the terms of the auditors. We require an audited financial statement for the AGM and the gap between the ending of the financial year and the AGM is to allow sufficient time for the audit to be carried out. Gatineau Gliding Club requested that the Directors change the date of half-year membership to 1 August rather than 1 September. While appreciating the arguments presented by GGC, the Directors resolved to remain with the current date.

**AWARDS AND TROPHIES** The options for recognition of the top finishers at National Contests were reviewed. It was decided to institute the awarding of Medallions to the top three in each class. The winners in each class would continue to be presented with the trophies donated for that purpose and be given keeper plaques to commemorate the fact. It was resolved to retire the Hawkesbury Trophy (awarded to the runner-up in Open Class) in order to standardize the awards for each class (trophies for the winners only).

**COMMITTEE CHAIRMEN** Dave Puckrin was appointed Chairman of the Publicity committee, filling a position that had been vacant for nearly two years. Boris Karpoff was appointed Chairman of the sub-committee FAI Awards. New Chairmen are needed for the committees Provincial associations and Financial Planning, as the current chairmen have indicated their desire to step down. Any volunteers? Please contact the National Office. □

# CLUB MANAGEMENT

Emilis Prelgauskas

reprinted from Australian Gliding, Nov. 81

Throughout my work, I have noted that, apart from its resources, a gliding club needs member enthusiasm, loyalty, and so on to survive.

There is more work yet to be done for us to better understand what resources a club requires to be viable. I don't pretend to have all the answers, but suggest I've a better understanding than most.

This article is the first to deal with the management of a gliding club, and how that affects its survival. As this directly involves the enthusiasm of a club's members and other similar qualitative rather than quantitative factors, the hypotheses more than ever are my own.

Even if you disagree, hopefully the approach will turn a few cogs. Part of sending this type of work for publication is to seek to excite discussion from which may provide a satisfactory explanation of how, despite all the fumbling, the sport manages to survive.

**Theoretical base**

In most of our day-to-day behaviour, glider pilots, like the rest of the community in which we exist, behave like consumers. Decisions are based on how suitable to our immediate needs the available resources are. So we 'buy' not only the product, but how it is packaged and how it meets our financial, practical and aesthetic needs. In soaring we are buying 'flying time'. As the diversity of gliding clubs shows us, this one commodity can be packaged and presented in different ways to appeal to different people.

So, here is the dilemma for the incoming committee. Having spent their gliding lives concerned essentially with how the sport can fulfil their needs, the problem is now perceived from a different standpoint.

Soaring is a sport, principally amateur in composition. Thus, the same pilots who are consumers of 'flying time' are also in effect the producers, manufacturers and suppliers of the commodity, in as far as their decisions affect how the gliding club operates.

If the committee resolves its decisions as a board of management, setting out to fulfil the objectives of the club, that is to maximize the production of 'flying time', then the club, and the sport as a whole, will prosper.

If however, the committee consists of individual consumers, and decisions are reached on the majority vote of vested consumer interests, then the club must fail.

This interesting example is surprisingly common. The committee decides to buy a new high performance sailplane. The club trainer (or first solo sailplane) is retained, perhaps given an overhaul.

The rationale is quite sustainable (from the consumer's point of view). The club has a competition pilot element, which appreciates having the most up-to-date equipment. The immediate needs of the other sections of the club are catered for, so there appears to be no problem.

However, the reality is faced the next winter when the new hot ship is collecting dust in the hangar and the basic sailplanes work hard, not only in filling the training need, but also earning income to pay for the new acquisition.

In summary, what is good for the pilots is not necessarily good for the club, or the sport. The club committee, acting as vested consumers, are doing the club a disservice.

**The access ratio**

If gliding clubs are instead the producers of 'flying time', the committee has to concern itself with all the factors that make their product available to the community.

The term access ratio has been used in the American SOARING magazine to essentially describe this attitude. The term has been used in comparison with glide ratio, which describes lift to drag, while access ratio describes cost to glide performance; or if you prefer George Moffat, dollars per glide point. In this article, the term access ratio is used even more broadly, although committees do have to consider cost for performance in buying sailplanes.

If a club is going to provide flying, it must first understand who is going to 'buy' it.

I once noted to a committeeman that his club has a 'market'. After a stunned silence, a nervous laugh, he asked whether I was being serious. Sure am. A club membership consists not only of the people already in the club, but also those who will be in it in the future. Every club can fairly simply define its market. Look at your current membership, and why they join your club in particular. Their attitudes, ambitions and criticisms will give you a guide as to people the club will attract in the future (it's called agglomeration), people of similar tastes banding together. Quite often, the attitudes also dictate how big the club will get.

Either the less affluent section of the community abandons its ambitions of flying, or those who seek out the amateur clubs are disappointed that the lower costs also means greater involvement and less sophisticated equipment. In this area, full time operators do the sport a disservice by presenting essentially the "America's Cup" end of the sport, while most of us are in fact "mucking around in dinghies."

So, the other factors to be considered are concerned with the product that the club is selling. Most clubs sell more than the performance of the sailplanes. They offer comradeship, mutual help, and even promise certain levels of hassle-free or regular flying.

So, the club must have equipment, airfield, sailplanes, launching, hangarage, maintenance, and flight instruction. It must also have each in sufficient quantity not only to serve its current membership, but also to have vacancies for new members. Thirdly, it must be able to guarantee that all are operational.

It's no good having a grand clubhouse, good sailplanes and launching if the rostered instructor doesn't turn up. Nor is there any point in buying a sailplane if no mechanism exists to maintain it. In both these areas, the professional has it all over the amateur.

However, a club committee, having shrugged off their vested consumer interests, can get down to making the club produce as much flying as practical for its members, then this will benefit both the club and the sport as a whole.

It is again interesting to note, that while clubs were buying new equipment in the early 70s, the sport grew rapidly. Having over-extended themselves, the current lack of expansion in resources is also reflected in a static GFA membership. So, the club must look at maximum resources within its means. This may mean buying a lower performance ship at a lower price. It may also mean discouraging private ownership of the heavily wing-loaded sailplanes, because the club can no longer justify the more powerful tugs, and wants to move to a cheaper operating tug or winch.

Private owners, in fact, can be a blessing or a plague, depending on how a club fits them into its own objectives. They can in effect increase the resources of a gliding site without the club having to buy the equipment; or they can become a stone around the club's neck by demanding backup equipment (launching, hangarage) well beyond the club's capability.

**The bottom line**

Gliding clubs must not be administered by "pilots". They must be operated by people with adequate vision to perceive that the gliding club is the vehicle whereby the sport provides flying to the community.

Clubs must establish objectives — for whom are we providing flying, how much equipment can we afford, how do we guarantee that we are operational? How do we make soaring accessible to the community?

If gliding clubs restrict access by virtue of insufficient equipment, inadequate organization, maintenance, or manpower, or excessive cost (read pricing yourself out of the market), then the club may in fact survive on its current membership, but will not be achieving the main reason for existing — the production of flying.

And when the sport is challenged (reductions in airspace, urban expansion engulfing a gliding site), if it can be demonstrated the soaring has been self-indulgent, elitist, and not serv-

# HOW TO USE YOUR LOCAL PAPER

## . . . A Little Survival Recipe for your Club PR efforts

Nigel Hannaford

*The Wide Sky Flying Club was formed in the spring of 1972, with a small population base (about 70,000) to draw from… And finally the club also "managed" to acquire the confidence and enthusiasm to the sport of Nigel Hannaford, the local newspaper editor, who soloed in 1980 and received his licence in 1981.*

Few flying clubs would argue that local newspapers and radio stations are fine things for building club solidarity and bringing in new members. Sadly though, few club public relations directors know how to use them.

The Wide Sky Flying Club of Fort St. John is one club that has mastered the art. During 1981, it obtained over 150 column inches of copy in the local newspaper, the Alaska Highway News, and inserted about five pictures. While Fort St. John has among the highest ratios of pilots to citizens to be found anywhere in Canada, the newspaper itself is not particularly aviation minded. Thus, the initiative had to come from the club; the paper didn't go out looking for gliding stories.

So if raising your profile in the community is anything of a club priority, here are some ideas on using the media, courtesy of the Wide Sky Flying Club.

**LOCAL PAPERS**

The first thing to realize is that local papers are by definition concerned mainly about their own community. The big metropolitan dailies may lead on wars, earthquakes and constitutional crises, but the Sleepy Hollow *Picayune* will be the only paper in the world that leads on the mundane doings of Sleepy Hollow. Furthermore, it will be keenly bought by the people of Sleepy Hollow to find out what their neighbours are up to.

You, the Sleepy Hollow Soaring Society, are their neighbours. Therefore, you should not feel the slightest hesitation in offering news of your activities to your paper. They should accept it without question as a legitimate subject for their pages. You have only to review the amount of fill (ie. cheap syndicated material) used in the pages of most small town papers to realize how short of local copy they really are. They don't have the money to hire many reporters so they rely on the news coming to them. Okay, take it in there.

**WHAT TO TAKE**

In Fort St. John, it is customary to make sure that any pilot who goes solo has his picture in the paper. It is a good idea to have somebody along whenever you are flying to take pictures. (You never know what's going to happen.) This is especially so when a solo is imminent.

Capture the moment for posterity. Seat your beaming soloist in the cockpit, beside the glider, by the tail, shaking hands with the Chief Flying Instructor, anything sensible and get the picture to the paper with a short write-up.

(On a matter of technique, get in close for your picture. Don't try and take the whole glider or in the final screened print, the face will be so small that who is who will be indistinguishable. Colour or black and white is fine, but don't send in slides or instant photos. They don't reproduce at all well.)

People news is what sells local newspapers and a solo flight, the happiest day of a man's life, definitely qualifies.

**IT'S A SPORT**

Next, consider writing up your weekend activities on a weekly basis. A few paragraphs saying who flew highest, longest, furthest and who had to be recovered from a bog should be a weekly feature of the sports pages.

Keep in mind that people often see the gliders above them and would actually be interested to know what's going on. You will be surprised how often you will be stopped in the street by acquaintances who will refer to the note they have seen on your flying in the paper.

Local papers are always scratching for interesting local pictures. Send in aerial views of the city or some local landmark, making sure that the club gets credit. It's also a good idea to send in pictures of a glider in flight to back up articles you contribute.

At least once a year, you should be able to get a more lengthy article in about the sport itself or some aspect of it. This year, the Wide Sky Flying Club inserted a lengthy article about wave flying which explained the process in words of half a syllable for non-flyers, complete with diagram from the 'Joy of Soaring'.

Other possibilities – does one of your members have an interesting flying history? Perhaps he flew in the Battle of Britain (on either side) or got shot up running medical supplies to Biafra for the RCAF. It always helps to feature wise old owls to counter the public impression that we are mainly certifiable lunatics.

One final point on pictures; if you are having any trouble getting in print, get a pretty (local) girl in the picture with your glider. Works every time.

**EDITORS**

While you will be performing a service for your paper by informing them of your doings, you shouldn't let them know it. Editors have massive egos; recognition and the feeling of power is what keeps them on the job. (It certainly isn't the money.) Thus an appropriate degree of deference to the dean of the pen should be adopted. Butter them up a bit (you needn't mean it), and tell them how helpful it will be for you and what good sorts they are. Lay it on with a trowel.

Once he's listening, play the ace. Offer him a ride. Make sure first that he's not going to depute some wimp who'll write a bone chilling story of how frightened he was in this motorless contraption and how he puked all over the instruments. That established, take him out to the strip and give him a whirl. He should be yours for the year. (Which is about as long as country editors stay anyway.)

The one thing you must do is take this thing seriously. If you promise an article for a certain time, deliver. Legible copy gets printed. Scribblings on the back of an envelope may not. Ideally it should be typed, double spaced and only one side of the paper used.

Above all, do not give this job to a deadbeat or somebody's wife. It can really make a lot of difference. The Wide Sky Flying Club has had several new members in 1981 who directly attribute their interest to what they read in the paper. New members mean club growth and money in the bank. It's that important.

Responsible stories which show there is something happening on a regular basis and that the people concerned are achieving things will sell your club and raise the image of the sport. Your PR man should also keep in touch with *free flight* and any regional gliding publications and keep a good file of everything that appears about the club. It's great stuff for the AGM and everybody loves to read their names in print — again and again.

If anybody wants to know anything further on this subject, feel free to contact the Wide Sky Flying Club care of 9707 - 91 Street, Fort St. John, BC V1J 5C8, attention Nigel Hannaford. We'd be happy to help. □

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ing a community need, then we can expect to be legislated out of existence, sooner or later.

**Hopeful signs**

One of the most encouraging aspects of community access to soaring is that with the increasing numbers of gliding clubs, the sport is diversifying. True, many established clubs are maintaining their traditional role, and membership numbers are remaining constant, suggesting that they are fulfilling a role.

Links with hang gliding and the ultralight (under 180 kg) movements are being tentatively formed. The self launching sailplane promises to expand the diversity in the way the soaring movement makes flying available to the community.

One wonders of course, how well geared the long entrenched GFA system is in accepting this diversification into its traditional way of doing things. □

# CLUB NEWS

## BACK TO THE BUNGEE OKANAGAN STYLE

Throughout the course of my involvement with gliding, I kept hearing the occasional comment that aerotow and winch launching were all very well, but by far the most satisfying way to get into the air was by "bungee" or catapult launch. Being of the curious type, I decided to try this idea of old, if at all possible. This meant I had to get a "bungee cord" first. Thus started the search for the great "elastic band".

Through a friend (also a glider type), Fritz Fingado, who just happened to be in England, we learnt of a company which still manufactures the cord for launching gliders. The order was placed and, three months later, the cord (catapult) arrived in Kelowna.

We hastily got the container home and opened it up to observe our new found launcher. That's when haste came to a great grinding halt as I "observed the weapon." One inch bungee elastic, 1200 strand, approximately 90 feet each side. "Holy Smoke!!" "What have I got myself into, this time?"

Not to be completely thwarted, I got my good friend, Dave Price, to make me up a nose hook from the blueprints of one for a Grunau Baby. While this was being done I rigged up a tail release mechanism for the Mü-13, with a ground attachment.

When all was ready the testing was started. Fortunately, I have a family that goes along with my "hare-brained" schemes and they volunteered to lend a hand with the trials. So with family and my good friend and partner, Don MacClement, we commenced the experiments.

I had a nagging feeling about the acceleration of the launch. I could not get a clear picture of what to expect or how much tension would be required in the cord. I decided to use the half ton pickup as a test bed. Knowing the weight of the pickup and the weight of the glider, I used the pickup to stretch the "bungee" then put the pickup in neutral and recorded the speed attained as the "bungee" did its job. Using approximate ratios, I calculated my speed on launch would be approximately 36 mph. Off to the hills we went to see if the theory was verified in practice. I was about to commit life, limb and machinery to a fully fledged launch.

We assembled the glider, readied everything at the brow of the hill and prepared to go as the wind slowly shifted to a westerly (tailwind) and it started to rain. Having come this far, I decided I was not going to give up. We would go ahead with the launch in spite of the (slightly) adverse conditions. I attached 600 feet of rope to the bungee, hooked the other end of the rope to the pickup, got in the glider and gave my brother, Jim, the signal to take up slack. Don held the wingtip and gave the signal to commence the launch, tailwind or no tailwind (15 mph). The bungee tightened up to its indicated length and the command passed to my son, Gordon, to release the tail hook. My wife, Lorraine, commenced taking the pictures.

"Wow!" Off I went like ----------. "Incredible" is all I can say. By the way, the airspeed read approximately 38 mph.

With the tailwind foremost in my mind I pushed the stick ahead to avoid stalling and flew along the landscape about 4 feet off the ground. I could see that on my present course I would overrun my pickup so eased the glider carefully away from it. The glider and one very excited pilot came to rest in a lower field all intact.

Unfortunately, that was my last launch in 1981. My business (logging) took up the rest of the year. I know the bungee works and if all works out, 1982 will be a year for more and better bungee launches in the Okanagan.

Bryan MacDonnell

## THE NEGATIVE SIDE OF A CLUB'S FLYING SEASON

The poor weather obviously did not help those who planned cross-country flights. But that is no reason to abandon cross-country checks for pilots and retrieve crew. Very little effort had been made to try and participate in a small contest organized in June by the CFI Denis Gauvin, although all necessary equipment was available. It looks like that circling over the church tower of St-Raymond is more appreciated, or to take up a passenger, because this flight costs nothing! Some enthusiastic demonstration for the most interesting part in our sport should be aimed at: go out and 'travel'.

We can no longer continue in this fashion. Have the efforts to organize the First Provincial Contest in Quebec in June 1980 and the participation of Denis Gauvin at the Eastern Regionals at Pendleton (he was once a day winner in his Class) served nothing but a Flash and running off much ink because nobody understood anything? Don't think that the club will invest in good fibreglass ships if the members don't prove their interest in using them appropriately. If you want evolution in respect to cross-country and competitions, you must do some organizing, or we are doomed to continue to take up passengers ...

Looking this way is a very bleak outlook for the seasons to come unless executives and members alike take matters in their hands and do the best to create this attraction of performance flying and mini-contests, or organize a Third Championnat du Quebec, and participate with as many ships as possible.

I believe that the club should pay special attention to the following:

- to work out triangles progressively for the beginners, followed by a theoretical course
- look for a weather service,
- learn to take turnpoint photos,
- form groups for retrieve crews,
- keep a diary on each pilot's progress,
- encourage group distance flying,
- hold several contests in a season,
- standardize retrieve trailers (hitch and connections).

It is terrible to let a season go by with a feeling of frustration because nothing has moved ...

It is true that it is easier to sit put with a glass of beer; it is true that it is a lot of tiring work to evolve, to have ideas and to plan distance flying, but we must fly more independently and in a more organized way!

Excerpt (translation) "Le Pingouin"

## BASE BORDEN SOARING

BBSG first started up in 1975 under the strict guidance of Tom Bell whom many of you know or have heard of. (Tom bosses instructors-to-be at the Eastern Instructors Clinics. — ed.) At that time we started with one 2-33 and a winch and three or four interested persons. Tom Bell was CFI, G. Huxtable is currently CFI. Today we have approximately 50 members consisting of Canadian Armed Forces personnel, associate members and some lifetime members.

At present we have a standing scholarship donated by Len Douglas in memory of his son Brian who died last year in Europe in a gliding accident.

Last year we purchased our second 2-33 and as yet it has no C of G hook, but hopefully when funds are up we will get this job done. Also this year we attempted to buy a towplane for the club.

We take our hats off to the following persons for their accomplishments: Doug Foley and Lisa Springford B badge, Brian Graystone C badge. A big handshake and free beer for Larry Springford for his 300 km cross-country in his privately owned Libelle; also congratulations go out to our new instructors, Len Douglas and Bruce Rowlandson who just completed the instructors course. This now brings the total up to seven instructors, four Class I, three Class III).

We would like to say thanks to Tom Bell who gave up one week of his holidays to instruct us in proper radio procedures and our licence

for same. We attempted a few contests within our club such as spot landings, cross-country and best height gains.

Terry Young

### SOSA SAFETY

In terms of total flights (3745 as of Oct. 31) it was not a banner year. But, you must agree, it was remarkable in view of the rotten weekend weather we had. Much credit must go to the mid-week gang who rang up 40-50 flights on Wednesdays and Fridays. Wolf Leers, again, was the prime mover on Wednesday and Dixon More on Friday.

Our good safety record — what can one say? The luck of the Gods? Perhaps. Possibly we've had tighter flight line discipline during the last couple of seasons. Thanks for this must go to Dave Ferguson, our previous CFI, for instigating the Senior Instructors committee. These watchdogs are the "eyes and ears" of safety and procedure. The committee this season consisted of previous CFIs and the current Assistant CFIs. It has worked well and I would recommend it be continued in the future.

Have you noticed the increase in the numbers of instructors on the flight line? Often there were more instructors than students. Andy Gough did it. He ran a highly successful, in-house instructor course this spring. The result: eight new instructors, including our first-ever lady instructor, Lynne Gough. Congratulations Andrew.

Several procedural changes have been made on the recommendation of the senior instructors and the approval of the instructors as a whole. The main change was necessary when the Astir arrived on the scene. In terms of progress through the fleet, the Astir is now between the Blanik or Lark and the Hornet. The detailed changes are posted on the bulletin board and are currently being incorporated into the Operating Procedures Manual. This should be completed in time for the AGM.

Two Silver C badge legs are now required before flying the Astir, and a completed Silver C prior to flying the Hornet. The badge requirements were introduced as a long-term measure in an attempt to emphasize the cross-country capabilities of these high-performance machines.

Finally, my personal thanks to those who made the CFI's job less arduous: my deputies, Ted Beyke and Andy Gough, Dixon More and Shirley Dashper for their work on the duty roster and to Herman Kurbis for his usual competent performance as Chief Towpilot.

Excerpt SOSA NEWS

### . . . A KAWARTHA INVITATION . . . ROAST LAMB AND PIG FOR ALL

Last year, our club improved in many areas thanks to the strength in our social atmosphere, and the dedication of its members. A bunk house was added to the clubhouse so that students may now more easily spend the weekend, thereby hangar flying later into the evening and getting earlier starts in the morning. After sunset, when the equipment is all put away, we sit down to a nice meal together, followed by a relaxing evening around the campfire. Occasionally, this serenity is broken by the sound of a human generated "tidal wave" coming from the direction of the swimming pool. All in all there has been so much after-flying activities, that most members are finding camping goes hand in hand with soaring. The family that plays together stays together.

We have always extended a warm invitation to others to visit and participate with our club. We are only 30 members; however, last year, we roasted a pig and lamb on that rainy 15 Aug weekend. Still, there were over 60 in attendance, and a good time was had by all. This is due to the splendid effort by our club captain Graham McKay. This year, the ROAST will again be held 14 August. I'm extending an invitation to all. We have an excellent campground, you are most welcome to spend the weekend. Bring the family, and have an excellent soaring holiday with us. For further details call Graham McKay (416) 668-3313, or write him at 1707 Dufferin Street, Whitby, Ont.

To further our growth, we have undertaken an extensive recruiting program. Last fall through the facilities of the Oshawa Cable TV studios we made 45 minutes of videotape which we have edited down into a nice tight program to promote our "Glider Pilot Ground School" course that has started 28 Jan at a local community college. We also will re-edit the tapes to make a promotional program in the spring that will promote our display in the Oshawa Shopping Centre (180 stores).

We have a Wilga for a towplane, a Blanik, 2-22, Cobra, Pilatus, Grunau Baby, and two Jantars on the field. The spirit of competition is strong here, and we would love to see more ships visit. Flying weeks this year will probably be 16 July – 15 Aug. Drop in.

Al Kirby

### MOT VISITS CVVQ

A recent visit by an inspector of Transport Canada at Club de Vol à Voile de Québec revealed many "take it easy" attitudes with respect to the Air Regulations. Here are the most important points to be watched thoroughly by us:

- The Journey Log Book and all other pertinent documents must be carried on board the equipment.
- Entries must be made into the Journey Log Books.
- Observations of medical expiry dates of each pilot (it is everyone's business).
- The Pilot's Log Books must be entered scrupulously.
- Journey Log Book entries must show time of first take-off and time of last landing of each aircraft flown that day (block time entry – ed.)
- Pilot's training in usage of oxygen equipment.

Excerpt (translation) "Le Pingouin"

*A friendly remark from your editor: if these or similar items slipped in your club, you better watch out!*

### THE EDMONTON TOWPILOT

If his hand is on the throttle
And he's taking up your slack,
He's a real good friend of yours,
You pat him on the back.

If he finds you lift and drops you there
You are in his debt forever.
But if he leaves you in the sink
You'll forgive him never.

If he stops for gas or stops for food,
He always takes too long,
It's always when the lift is best,
How could he be so wrong?

To stop and stretch is ludicrous.
If you've only done six hours,
The line is long, to stop is wrong
Just look at those cumulus towers!

Press on, fly on, till dark does come
And with darkness and weary bone
Wind up the rope and dare to hope
That you don't have to hangar alone.

Tom Schollie, Edmonton Soaring Club

### REGINA

The Thanksgiving wave camp at Cowley resulted in mixed success for the Regina group. This year our club participated to a far greater extent than we have done for almost 20 years. No less than 12 people left Regina by aeroplane and car bringing along the club 1-26 as well as a private 1-23 and 1-26. I hope this marks a 'wave' of new enthusiasm for the club!

The flying left something to be desired due to lack of cooperation by the weather. Even our attendant weatherman Ted Chernicki (CKTV Regina) couldn't conjure up anything to stop the rain. Looking back however, our club could have done a little better if we had moved a bit quicker at the start. Anyway we got some wave flying to the 13,000 to 18,000 foot level, and every other flying member of our contingent got into the air with at least a thermal flight.

The trip home was something else! Those ever-optimistic souls who thought the weatherman might be wrong stayed over till Monday. The smart ones headed out in the rain on Sunday and got home uneventfully. Those who stayed over, paid the price: with snow and ice east of Medicine Hat. The Eley trailer was left behind at Swift Current after several harrowing incidents: first getting stuck on a mud road, then in the snow, and finally doing uncontrolled downhill slides before getting to a safe drop-off point in the Highways yard. The rented plane the rest of the group had, stayed over another day and had smooth sailing and a tail wind all the way home.

In summary the weekend was a success even though cut short. Everyone gained some experience and enjoyed the camaraderie. Our club would like to thank the organizers for all the hard work in making this event possible. I'm sure Cowley will be seeing more of the Regina club from now on.

Harold Eley

# FAI BADGES

Dave Belchamber

**The following badges and badge legs were recorded in the Canadian Soaring Register during the period 4 December to 8 February 1982.**

### DIAMOND BADGE

| | | |
|---|---|---|
| 40 | Lee Coates | Cu Nim |

### GOLD BADGE

| | | |
|---|---|---|
| 185 | Ted Beyke | SOSA |

### SILVER BADGE

| | | |
|---|---|---|
| 606 | Alfred Embury | SOSA |
| 607 | Robert Carlson | SOSA |
| 608 | L.G. Hill | Lahr |
| 609 | Brian Hollington | Vancouver |
| 610 | Vladimir Konecny | Windsor |
| 611 | Wesley McCauley | Windsor |
| 612 | Adrian Guichelaar | London |
| 613 | John Cove | London |
| 614 | Theodore Radvanyi | York |
| 615 | Horst Loeschmann | Vancouver |
| 616 | John Charlton | Gatineau |
| 617 | Brent McNiven | York |

### DIAMOND DISTANCE 500 km (310.7 mi)

| | | | | | |
|---|---|---|---|---|---|
| | Lee Coates | Cu Nim | 503 km | Pik20B | Black Diamond, Alta. |
| | James Gumming | Winnipeg | 508 km | Phoebus C | Pigeon Lake, Man. |

### DIAMOND GOAL 300 km (186.4 mi) O&R or Triangle

| | | | | | |
|---|---|---|---|---|---|
| | L.G. Hill | Lahr | 306 km | ASW-19 | Baden-Baden, W. Germany |
| | Ted Beyke | SOSA | 306 km | ASW-15 | Rockton, Ont. |
| | Jeffrey Tinkler | Winnipeg | 311 km | Astir CS | Pigeon Lake, Man. |
| | Dennis Vreeken | Vancouver | 307 km | Phoebus A | Innisfail, Alta. |
| | Seth Schlifer | York | 305 km | 1-35 | Arthur, Ont. |

### DIAMOND ALTITUDE 5000 m (16,404 ft)

| | | | | | |
|---|---|---|---|---|---|
| | Alex Krieger | Quebec | 5550 m | Std. Cirrus | Baie St-Paul, Que. |
| | Maurice Laviolette | Quebec | 5400 m | Std. Cirrus | Baie St-Paul, Que. |
| | George Dunbar | Cu Nim | 5310 m | Dart | Cowley, Alta |

### GOLD DISTANCE 300 km (186.4 mi)

| | | | | | |
|---|---|---|---|---|---|
| | Gerald Dixon | Regina | 308 km | 1-26 | Indian Head, Sask. |

### GOLD ALTITUDE 3000 m (9842 ft)

| | | | | | |
|---|---|---|---|---|---|
| | Denis Pepin | Quebec | 4600 m | Ka6CR | Baie St-Paul, Que. |

### SILVER DISTANCE 50 km (31.1 mi)

| | | | | | |
|---|---|---|---|---|---|
| | Alfred Embury | SOSA | 62 km | Skylark 4 | Rockton, Ont. |
| | Robert Carlson | SOSA | 62 km | 1-26 | Rockton, Ont. |
| | Brian Hollington | Vancouver | 56 km | Blanik | Ponoka, Alta. |
| | Wesley McCauley | Windsor | 60 km | K8 | Dresden, Ont. |
| | Adrian Guichelaar | London | 65 km | 1-34 | Rockton, Ont. |
| | John Cove | London | 65 km | 1-34 | Embro, Ont. |
| | Theodore Radvanyi | York | 62 km | ? | Arthur, Ont. |
| | Horst Loeschmann | Vancouver | 71 km | Blanik | Innisfail, Alta. |
| | John Charlton | Gatineau | 59 km | Skylark 3B | Pendleton, Ont. |
| | John Semple | SOSA | 62 km | 1-26 | Rockton, Ont. |
| | Brent McNiven | York | 61 km | Blanik | Arthur, Ont. |

### SILVER DURATION 5 hrs

| | | | | | |
|---|---|---|---|---|---|
| | Marc Rebs | York | 5:18 | 1-23 | Arthur, Ont. |
| | Harold Ogden | SOSA | 5:35 | 1-26 | Rockton, Ont. |
| | L.G. Hill | Lahr | 5:02 | ASW-19 | Lahr, W. Germany |
| | Gary Paradis | RVSS | 5:12 | 1-26 | Warren, Vt. |
| | Vladimir Konecny | Windsor | 5:23 | K8 | Dresden, Ont. |
| | Wesley McCauley | Windsor | 5:07 | K8 | Dresden, Ont. |
| | Michael Dodds | Kawartha | 5:25 | Pilatus B4 | Omemee, Ont. |
| | Fred Schnell | York | 5:08 | 1-23 | Arthur, Ont. |
| | Theodore Radvanyi | York | 6:02 | ? | Arthur, Ont. |
| | Horst Loeschmann | Vancouver | 5:14 | Pilatus B4 | Hope, B.C. |
| | George Warren | Bluenose | 5:17 | Ka6E | Stanley, N.S. |
| | Chris Proszowski | Gatineau | 5:19 | Skylark 3B | Pendleton, Ont. |
| | Michael Ryan | Kawartha | 5:20 | Pilatus B4 | Omemee, Ont. |
| | David Sikma | York | 5:36 | 2-33 | Arthur, Ont. |
| | David Frank | RVSS | 5:40 | 1-26 | Kars, Ont. |
| | Roger Hildesheim | York | 5:12 | 1-26 | Arthur, Ont. |
| | Dave O'Connor | RVSS | 5:30 | 1-26 | Kars, Ont. |
| | Michael Steckner | London | 5:22 | 1-26 | Embro, Ont. |

### SILVER ALTITUDE 1000 m (3281 ft)

| | | | | | |
|---|---|---|---|---|---|
| | Marc Rebs | York | 1615 m | 1-23 | Arthur, Ont. |
| | Michael Kepron | Winnipeg | 1310 m | ? | Pigeon Lake, Man. |
| | L.G. Hill | Lahr | 1754 m | ASW 19 | Lahr, W. Germany |
| | Wesley McCauley | Windsor | 1158 m | K8 | Dresden, Ont. |
| | Adrian Guichelaar | London | 1310 m | 1-34 | Rockton, Ont. |
| | Jay Beattie | Regina | 2050 m | 1-26 | Indian Head, Sask. |
| | John Cove | London | 1280 m | 1-34 | Embro, Ont. |
| | Theodore Radvanyi | York | 1372 m | 1-26 | Arthur, Ont. |
| | Horst Loeschmann | Vancouver | 1305 m | Blanik | Innisfail, Alta. |
| | Michael Ryan | Kawartha | 1219 m | Pilatus B4 | Omemee, Ont. |
| | Bill McKnight | Kawartha | 1219 m | Pilatus B4 | Omemee, Ont. |
| | David Sikma | York | 1158 m | 2-33 | Arthur, Ont. |
| | Percy Yungblut | York | 1310 m | ? | Arthur, Ont. |
| | Paul Wilson | ? | 1112 m | Ka6CR | Sebring, Fla. |

### C BADGE 1 hour duration

| | | | | | |
|---|---|---|---|---|---|
| 1751 | Peter Champagne | Winnipeg | 1:39 | ? | Pigeon Lake, Man. |
| 1752 | Harold Ogden | SOSA | 5:35 | 1-26 | Rockton, Ont. |
| 1753 | Michael Kepron | Winnipeg | 1:18 | ? | Pigeon Lake, Man. |
| 1754 | L.G. Hill | Lahr | 5:02 | ASW-19 | Baden-Baden,W. Germany |
| 1755 | Karen Petalik | Montreal | 1:30 | 2-33 | Hawkesbury, Ont. |
| 1756 | Tim McElvaine | Rideau | 1:51 | 1-26 | Gananoque, Ont. |
| 1757 | Doug Foley | Base Borden | 1:28 | 2-33 | Base Borden, Ont. |
| 1758 | Wesley McCauley | Windsor | 5:07 | K8 | Dresden, Ont. |
| 1759 | Jay Beattie | Regina | 2:07 | 1-26 | Indian Head, Sask. |
| 1760 | Otto Doering | Montreal | 1:02 | 1-26 | Hawkesbury, Ont. |
| 1761 | Janez Volcic | SOSA | 1:08 | 2-33 | Rockton, Ont. |
| 1762 | Horst Loeschmann | Vancouver | 5:14 | Pilatus B4 | Hope, B.C. |
| 1763 | George Warren | Bluenose | 5:17 | Ka6E | Stanley, N.S. |
| 1764 | Lesley Pickard | Bulkley Valley | 1:28 | Blanik | Smithers, B.C. |
| 1765 | William Goertzen | Winnipeg | 1:52 | 1-26 | Pigeon Lake, Man. |
| 1766 | Michael Ryan | Kawartha | 2:21 | Grunau Baby | Omemee, Ont. |
| 1767 | Mart Nunnelley | Missisquoi | 1:12 | ? | Mansonville, Que. |
| 1768 | Gordon Waugh | Bluenose | 1:31 | K8 | Stanley, N.S. |
| 1769 | H.J. Weichert | Gatineau | 1:16 | 1-26 | Pendleton, Ont. |
| 1770 | Harold Smith | Winnipeg | 1:04 | ? | Pigeon Lake, Man. |
| 1771 | Bill McKnight | Kawartha | 1:25 | Pilatus B4 | Omemee, Ont. |
| 1772 | Brad Johnston | Base Borden | 1:04 | ? | Base Borden, Ont. |
| 1773 | David Sikma | York | 5:36 | 2-33 | Arthur, Ont. |
| 1774 | Alexander Routh | York | 1:08 | 2-33 | Arthur, Ont. |
| 1775 | Reid Finlay | SOSA | 1:35 | 1-26 | Rockton, Ont. |
| 1776 | David Frank | RVSS | 5:40 | 1-26 | Kars, Ont. |
| 1777 | Keith Smith | Base Borden | 1:10 | 2-33 | Borden, Ont. |
| 1778 | Cass Bieniak | York | 1:01 | 1-26 | Arthur, Ont. |
| 1779 | Tibor Ribi | York | 2:15 | ? | Arthur, Ont. |
| 1780 | Lorenza Rosa | York | 1:08 | ? | Arthur, Ont. |
| 1781 | Bruce Feuchuk | Vancouver | 2:00 | Blanik | Hope, B.C. |
| 1782 | Alfonz Novak | SOSA | 1:07 | 1-26 | Rockton, Ont. |
| 1783 | Lorraine Palumbo | York | 1:10 | 2-33 | Arthur, Ont. |
| 1784 | Roger Hildesheim | York | 5:12 | 1-26 | Arthur, Ont. |
| 1785 | J.H. Roddick | Base Borden | 1:04 | 2-33 | Base Borden, Ont. |
| 1786 | André Pepin | Champlain | 2:20 | Jantar | St. Antoine du Richelieu, Que. |
| 1787 | Dave O'Connor | RVSS | 5:30 | 1-26 | Kars, Ont. |
| 1788 | Michael Steckner | London | 5:22 | 1-26 | Embro, Ont. |

As this is my last submission to **free flight** as the FAI Awards Chairman, I would like to take this opportunity to wish everyone a successful 1982 soaring season and I hope that there are as many or more claims sent to the new FAI Awards Chairman than there were in 1981. I would also like to wish the new FAI Awards Chairman good luck in his new undertaking, and I hope that he has a lot of spare time available to devote to his new task. Best luck, Boris.

Sincere regards,
Dave Belchamber,
FAI Awards Chairman

### '82 CANADIAN NATIONALS NEWS

Open 15 Metre Standard Classes

Host: SOSA GLIDING CLUB, Rockton, Ont.

Practice: Sat 25 June — Wed 30 June

Contest: Thu 1 July — Sat 10 July
Sun 11 July (rain day)

The organization is proceeding at a favourable pace. Funding of government sources and the private sector is in hand. Art Schubert of York Soaring generously agreed to be the Start Gate Chief. This gave us a real boost when recruiting personnel, as the position is not only a key to the skilful running of the contest, it is most of all crucial to the scoring. We wish to welcome Art.

Do you want to help at the contest? Together with Art Schubert and Ground Chief Sid Wood (SOSA) you will learn from the experience of the experts. If you want to be part of the Nationals, please call me.

Entry to the 1982 Nationals will be limited to 45 in three Classes, due to the size of Rockton Airfield. Entries will be accepted from any suitably qualified pilot, and if, by the 30 April 1982, more than 45 entries have been received, selection will be made based on performance in previous Canadian contests. Any places left unfilled on that date will be filled on a first come first served basis, so send your entries in as soon as possible; there is a good chance they will be accepted.

Camping at the airfield is available and the clubhouse has showers and toilets. There are numerous motels within a ten mile radius of the airfield.

At the time of entry, pilots will be asked to provide a passport photograph and biography. This will be published in a contest programme.

For further information or entries contact Colin Tootill
815-41 Antrim Crescent, Scarborough, Ontario
(416) 292-8920 H (416) 751-6522 B

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PUBLICITY
Mr. Dave Puckrin
35 Mill Drive
St. Albert, Alta. T8N 1J5

RADIO
Mr. F. Vaughan
Box 113, RR 1
Kanata, Ont. K2K 1X7

SAFETY
Mr. E. Newsome
131, 13710 - 67th Ave.
Surrey, BC V3W 6X6

SPORTING
Dr. D. Marsden
3920 Aspen Dr. W.
Edmonton, Alta. T6J 2B3

SUBCOMMITTEES

FAI AWARDS
Mr. Boris Karpoff
24-1/2 Deloraine Ave.
Toronto, Ont. M5M 2A7

FAI RECORDS
Dr. & Mrs. R. Flint
96 Harvard Ave.
Winnipeg, Man. R3M 0K4

SAILPLANE REGISTRY – CONTEST LETTERS
Mr. R.L. Barry
542 Rouge Rd.
Winnipeg, Man. R3K 1K4

TECHNICAL
George Adams
12 Hiawatha Parkway
Mississauga, Ont. L5G 3R8

TROPHIES & STATISTICS
Mr. D. Miller
19 Richie Cresc.
Regina, Sask. S4R 5A5

TROPHY CLAIMS
James W. Oke
551 Bruce Ave.
Winnipeg, Man. R3J 0W3

METEOROLOGY CONSULTANT
Dr.S. Froeschl
1845 Brookdale Ave.
Dorval, Que. H9P 1X5

WORLD CONTEST
Mr. Oskar Estebany
921 St. Auban
Montreal, Que. H4M 2K2

# FOR SALE

# COMING EVENTS

Mar 19-21, **SAC Annual General Meeting**. Airport Ramada Inn, Montreal, Que. Details see page 2 this issue.

May 22-24, **Innisfail May Meet**. Hosted by Edmonton Soaring Club at Innisfail airport, Alberta. Contact Lee Coates, 2216-32 Street SW, Calgary, Alberta T3E 2R5 (403) 242-3056 H.

May 22-24 – May 29-30, **Annual Mudbowl Contest** held at SOSA, Rockton airfield. For more information contact Colin Tootill, 815-41 Antrim Crescent, Scarborough, Ont. M1P 4N4, (416) 292-8920 H (416) 751-6522 B.

May 31 - Jun 4, **Erin Soaring Flight Training Week**. A five-day intensive training course of flying training for pre-solo glider pilots. Contact Jack Dodds, Erin Soaring Society, Box 523, Erin, Ont. N0B 1T0 or phone (416) 451-3155. Visiting pilots welcome.

Jun 12-19, **Eastern Basic Instructors Clinic**, hosted by Gatineau Gliding Club at Pendleton airfield, Ontario. Contact Wolfgang Weichert (613) 836-1318.

Jun 28-Jul 2, Flying Week, Winnipeg Gliding Club.

Jul 1-10, **Canadian Nationals.** SOSA Gliding Club at Rockton airfield, Ontario. More page 24 this issue.

Jul 4-10, **Western Basic Instructors Clinic**. Hosted by Edmonton Soaring Club at Chipman. Contact Garnet Thomas 16623-93A Ave., Edmonton, Alta. T5R 5K1.

Jul 12-16, **SSA 50th Golden Anniversary Safari**, Heber, Utah. Contact Rick Matthews. Details see 6/81 page 19.

Jul 16-Aug 15, **Kawartha Flying Weeks**. Please drop in, they love to see more ships visit. For details call Graham McKay, (416) 668-3313, or write 1707 Dufferin St., Whitby, Ont.

Jul 17-25, **Annual Soaring Weeks**, hosted by London Soaring Society, Box 773 Stn B, London, Ont. N6A 4Y8.

Jul 18-23, **Advanced Instructors Course**. Host Winnipeg Gliding Club. Contact Frits Stevens.

Jul 24-Aug 2, **Cowley Summer Camp** at Cowley airfield, Alberta. Hosted by Alberta Soaring Council. Contact Ken Palmer, 23 Baker Crescent NW, Calgary, Alta. T2L 1R3 (403) 284-1396 H.

Aug 14, **Kawartha "Roast"**. They extend an invitation to all. More under Club News this issue. For details call Graham McKay (416) 668-3313, or write 1707 Dufferin St., Whitby, Ont.

Oct 2-3, **SAC Directors Meeting**, Vancouver, B.C.

Oct 9-11, **Cowley Wave Camp** at Cowley airfield. Hosted by Alberta Soaring Council. Contact Lee Coates (403) 242-3056 H or Ken Palmer (403) 284-1396 H.

Jan 9-29 1983, **18th World Gliding Championships**, Adolfo Gonzales Chaves (450 km SW of Buenos Aires).

# WANTED

*Classified ads (above) & back page omitted*