

free flight • vol libre

6/89
Dec - Jan

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POTPOURRI

SAC was informed by Sport Canada on the 10th of July that we are not eligible for funding for 1989-90 and until further notice. Thus we are now totally on our own. The average yearly grant from 1979 to 1988 in 1989 dollars was \$14,000, or \$16 per person.

Perhaps it's a good thing as planning in an atmosphere of doubt is not conducive to good health and efficient use of funds. The cutback was not unexpected and steps were taken early on to ease the effects of this loss of revenue. Imaginative planning in our small store and a good response from our members through the use of the "Soaring Stuff" inserts resulted in increased sales. We will also receive higher than projected investment income essentially due to careful cash management and short-term interest rates, which have remained higher for longer than generally expected. In addition, a small gain in projected receipts from an unexpected increase in membership – now at 1423 – which is the first time since 1982 that we have passed 1400.



Total expenditures should come in well below budget projection, primarily as a result of scaling back meetings and travel expenditures. On balance it seems fair to say that a combination of some tight fistedness on the expenditure side and a bit of luck on the revenue side will leave SAC in a financially stronger position than was expected at the beginning of the season, despite the cutting off of government funding.

What of the future. Inflation will continue, interest rates will fall and we cannot cut our Flight Training and Safety meetings without suffering for our short sightedness. Thus some real adjustments are necessary, the chief of which must be an increase in the value of the Pioneer Trust Fund which needs a steady infusion of capital until it earns enough interest to take the place of government funding. In line with this a drive for contributions, tax deductible, to this fund has started and the more you all contribute the less will be the need for an increase in membership rates.

You will all remember the arrival of an AIP circular, "Mid-Air Collision Avoidance Initiative" 0/10/88, which outlined a proposed major re-organization of the Terminal Control Area structure. At first glance one had visions of an end to soaring in many of our gliding areas. Meetings and letters to Transport Canada disabused us of such major results. A request by Transport Canada to comment on the proposed changes spelled out in the AIP (which has a circulation of 65,000) brought 219 responses, 125 of these from the soaring community. In September, Transport Canada sent out to the responders a summary of their comments.

For the soaring community there is no immediate threat to our freedom in the skies which can be summarized by the TC statement in their letter, "Aircraft will not be required to carry Mode "C" transponders in any other airspace where they have not previously been required to carry a transponder, under the ANO. Therefore, if gliders and other aircraft have been flying in airspace where there is no requirement for a transponder, they will be able to continue to do so." Your Airspace committee will be informed by Transport Canada of any new developments, and in line with this our committee will be meeting with the TC Canadian Airspace Review in December to be brought up to date.

Thanks to our Directors, members of all our productive committees and our forty-four clubs and their enthusiastic members we have had an excellent year. Everything is up except accidents which bodes well for the new year.

Have a Merry Christmas with your loved ones, and in the new year, good fortune, good health and days full of happiness and high thermals. Take care.

Gordon Bruce

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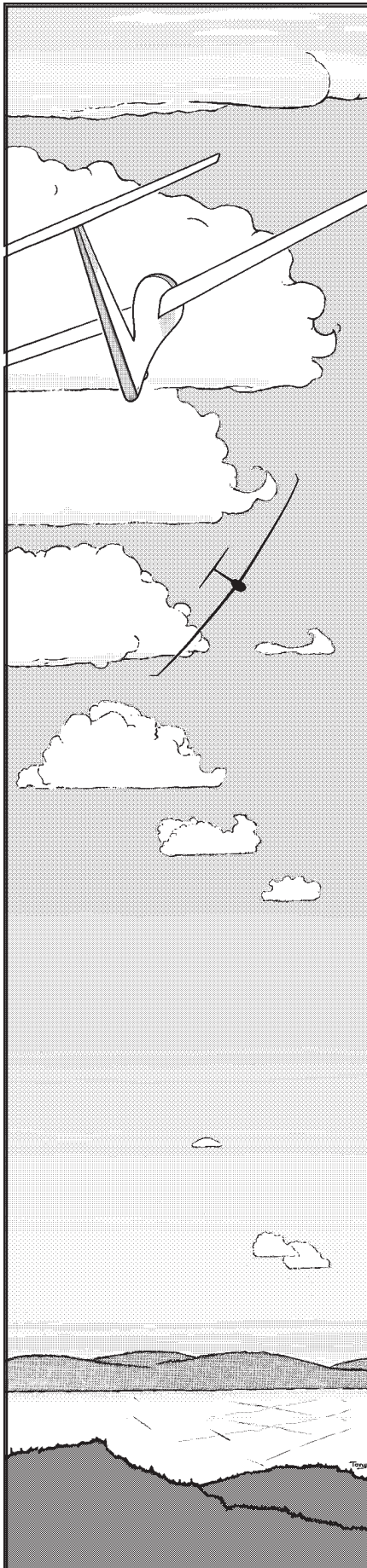
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Cover

George Eckschmiedt and the Hungarian vintage sailplane, the Futár. George describes its flight characteristics in this issue. Note the plywood panel above the pilot's head position which restricts upward visibility.



WELCOME TO THE CLUB !?

TINY HORROR STORIES

Gary Chapple

President, Mile Zero Cadet Soaring Association

JUST DON'T BELIEVE THIS! Here I am, a SAC member for only a few months, and already I'm getting into the fray. But then Gordon Bruce did broach the subject in the 4/89 issue of *free flight* ... Perhaps a little background is appropriate here. Although I have only been a SAC member for a little while, I have been a power pilot for over 30 years. I've been a glider pilot for a decade and a towpilot for almost as long. So what took me so long to become a member? That's what I'm writing about. Now if you should recognize yourself in what follows it is quite unintentional. But I do want to illustrate my point. So I promise that if you don't tell, I never will.

Gordon stated that generally our clubs are doing well except for the recruitment of new members. I can fully understand his concern and perhaps by relating my experiences, and that of a friend, I can shed a little light on at least a couple reasons why our clubs aren't growing. I am far from an expert in this field, but I have had some difficulties getting to join a gliding club. And if I hadn't got the Mile Zero Cadet Soaring Association going in Dawson Creek, British Columbia, I might not have joined yet.

For a period of time after I got my glider pilot licence, I wasn't near any clubs. That wasn't a problem though because I was involved with an Air Cadet Squadron that had its own glider, so I didn't need to join a club. Then I moved to an area where there was no glider. But there were two clubs nearby. I say nearby because any enthusiastic soaring buff will happily drive a hundred miles (160 km for your Old Country types) or so to go flying. So what was the problem?

Let me tell you about the first group. I drove over to their place with a group of Air Cadets. The Cadet glider was there and the club's towplane was used, for which they were paid, by the way. Because I was with the Cadets, the club members would not talk to me. My friend was more insistent than I was and he got to talk to someone who said he would give him a ride in the Blanik, but only if he was interested in joining the club. Well, that was fine because that is precisely why my friend had come. He also wanted a membership for his son. Before he got to use his membership he overheard another club member remark that he should not have been sold a membership. "If they want to want to glide let them start their own club. We don't get enough time here ourselves." Neither my friend nor I ever went back. That club folded. It has now started up again but is struggling for members.

Undaunted, I tried the other club. Boy, was I made welcome. I was given a free flight which consisted of a tow to 2000 feet, two tight loops, a dive towards the ground with a pull-up, a right turn and descent to a landing. Good thing I was too inexperienced to be scared. Then came the shocker. Initial one time membership fee was three thousand dollars plus an annual dues of two hundred dollars. Then there would be the maintenance assessment at the end of the year. Smokin' thermals! I didn't want to buy their sailplane, I just wanted to fly it. By the way, that club has folded too.

I was recently at a club where a course was being held. The first day I arrived I asked about the course and was told that no one was around. Then it was suggested that I try the clubhouse. There I was told that I should try the field. I point out that after I got to know some of these people I really felt at home. Then I visited another club. The first person I met had been on the course I just mentioned and he introduced me to every member on the field. I had a great time and certainly felt most welcome. But at the same time a young gal who had just graduated from an Air Cadet course showed up with money to fly and wanting to join the club. No one seemed able to tell her how to join and it took over an hour and a half before someone showed enough interest to take her flying. I trust she was able to enroll, but I had to leave before I could find out.

I would hate to think I wrote all this, which must look like I'm unloading after a visit to the psychiatrist, without having a point in mind and some positive suggestions. We, as club

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The SOARING ASSOCIATION OF CANADA

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

free flight is the official journal of SAC.

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

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

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

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Deadline for contributions
5th day of each ODD month

Opinions

L'ASSOCIATION CANADIENNE DE VOL À VOILE

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

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

vol libre est le journal officiel de l'ACVV.

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

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

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

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

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

Pour changements d'adresse et abonnements aux non membres de l'ACVV (\$18 par an, \$EU 18 dans les Etats Unis, \$EU24 outre-mer) veuillez contacter le bureau national.

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TRACKING DOWN A KIRBY KITE

Dear Sirs,

Perhaps you can help me. I am the present owner of what I believe to be the only Kirby Kite glider (N37190) remaining in the USA (and most probably in this hemisphere). I am currently trying to compile a comprehensive history of its owners. I have been somewhat successful with the exception of a gap involving its acquisition and use in Canada ... early in its history.

Highlights of what I do know are that the ship was manufactured by Slingsby, England in October 1937 and thereupon acquired and flown by Anny Johnson, the English aviatrix. I then picked it up on being acquired in 1941 by the Harvard University Glider Club (Boston area) from the McGill University Glider Club in Montreal. From the mid-1940s to the early 1950s it was owned by Dr. August Raspet, who flew it at the 1947 US Nationals and subsequently used it in his bird performance studies at Mississippi State University. He did a paper on the subject that appeared in various soaring publications in the early 1950s. From Raspet, it went through a number of owners, all of whom I believe I can identify.

My problem is the period from the disposition of the ship by Anny Johnson to its acquisition in 1941 by the Harvard University Glider Club from the McGill University Glider Club. For your information there is a reference (including picture) in the July/August 1941 issue of Soaring to a James A. Simpson of Montreal, flying a Kirby Kite, as the only foreign pilot at the 1941 US Nationals at Elmira, NY. (Incidentally, Simpson made a 50 mile flight in the Kite at the Meet.) There is also a reference (including picture) in the August 1939 issue of Sailplane & Gliding to a J. Simpson, formerly of McGill University Glider Club in Montreal, helping out at the 1939 British Nationals. As you probably know, James Simpson was the first president of the Soaring Association of Canada, an early president of the Gatineau Glider Club, an early Silver C pilot (early 1940, 1945 or 1946) and the author of a number of papers on soaring.

It would seem that the key to my quest is either James Simpson and/or the McGill University Glider Club. If you or anybody in your organization can help me out or get in touch with someone who can, it will be most appreciated.

Thank you kindly for your help.

Very truly yours,

Dale A. Busque
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FUTURE DIRECTION FOR SAC ?

I have recently just finished reading Paul Schweizer's book "Wings like Eagles", Stewart Midwinter's letter to Gordon Bruce, reprinted in *free flight*, and Ulli Werneburg's letter to Ontario pilots as their Zone Director. All relate to the current state of soaring in Canada. Mr. Midwinter and Mr. Werneburg are rightfully concerned about the budgetary problems with their respective associations. It is common knowledge now that with the present membership levels, government funding has dried up. Mr. Werneburg has approached our budgetary problems by polling the Ontario membership on changes to *free flight* (a big budgetary target), and/or increasing our fees by \$10, and/or seeking corporate sponsorships. Mr. Midwinter suggests some strength-in-numbers approach, in proposing to amalgamate our two associations to meet the government requirements to the benefit of both groups. While both of these gentlemen no doubt have good intentions, and I wish them good luck in their endeavours, I think that they both have fundamentally missed the mark.

Both are looking for outside organizations to solve what are basically internal problems. It would perhaps be enlightening for both of them to read Schweizer's account of the soaring movement of the United States. Approximately one-third of this book covers the administrative history of the Soaring Society of America over the last fifty years. While others may not draw the same conclusions, the main points that I have noted in this account are that:

- Membership is the most important single factor in the success of SSA. When they were a smaller organization they had similar problems to those we are now facing.
- Government support is extremely hard to rely on.
- Corporate sponsorship is unreliable. Unless the corporation is headed by an active glider pilot, or has vested interest in the soaring movement, they will not support our activities for long.
- You can't act like a big organization until you are one. Every attempt to put the cart before the horse in this sense left SSA on shaky financial ground.
- Membership fees do make a difference. As student membership fees increased in the USA there was a corresponding steady drop in student membership. Members want value or services for their money. The present membership fee of approximately \$45 (Canadian) is perceived by most members of the SSA to be good value for the services that they receive.

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DANCING WITH THE LADIES

THE 17TH

INTERNATIONAL

OLDTIMER

RALLY

George Eckschmiedt
Vancouver Soaring Association

THIS WAS A RALLY that words are inadequate to describe. You had to be there to feel the sight of 30 to 40 vintage gliders line up for takeoff; to share the thermal with 24 antique sailplanes each an almost irreplaceable example of beauty, engineering and craftsmanship; to meet my instructors of 39 years ago — yes some of them still fly — friends, colleagues not seen for 33 years; the camaraderie and the overwhelming, warm feeling of nostalgia.

When I arrived at the airfield, just the sight of two beautiful Hungarian Oldtimer sailplanes — the Futár and the Június 18 — strategically displayed in front of the registration office, was enough to create the feeling of delight. About five years ago I had seen an example of the latter displayed in front of a building as only an ornament; I thought, what a nice touch to have these holy relics displayed here for all to see and at least to touch.

THIS WAS THE 17TH, ONE CAN NOW SAY TRADITIONAL, meeting for glider pilots and old sailplanes. The organizers were the Vintage Glider Club of Great Britain, and the first meeting took place in 1973 in Husbands Bosworth in England. The aim is to annually gather pilots and flyable vintage gliders somewhere in Europe. This year, the 60th anniversary of soaring in Hungary, it was their turn to host this coveted Rally.

It was a perfect opportunity to gather oldtimer Hungarian pilots from all over the world: Norbert Csanadi, Imre Mitter, Gyorgy Mezo, Laszlo Csensus, Erno Rubik, etc. from Hungary. Tony Almasy came from faraway Brasil, Fred Hefty, Les Bonis, Mr. Szalay, Kornel Nagy, Aladar Wieland from the USA. (Fred Hefty is the son of the first Hungarian fighter pilot of the 1914-18 war, and one of the leaders to establish gliding as a sport in Hungary in the early 20s. Fred was the first "dual" pilot before his teens, his father had strapped him onto the stick-fuselage of a Grunau 9 behind his seat and thus young Hefty had his intro. He is still flying.)

The Rally was held on Farkashegy airfield, located just outside of Budapest and was hosted by the two Hungarian clubs that fly there. Due to the large number of vintage aircraft anticipated, most of the clubs' aircraft were moved to nearby airfields for the duration of the Rally, so that many of the vintage planes would not have to be derigged every day but could be hangared overnight. (Many old aircraft take considerably more time to rig than today's superships.)

As the opening day grew nearer more and more gliders arrived, their pilots (and families) pitched their tents and started the assembly work on their craft. The Rally opened officially on the 20th of July with a short ceremony and flyby at the "Bowl", a shallow valley in the hills where many oldtimer pilots learned to fly.

Canada was represented by pilots only; none of us could afford to take a glider. From out west came Antonia Williams (Cservenka) who was an instructor at Farkashegy in the 50s (she still holds several Canadian feminine records) and George Eckschmiedt, Lloyd Davies from Winnipeg, and Csaba Gaal from Toronto. With the exception of the very popular Antonia — "Toncsi" — as everybody knows her in that corner of the world, she was nursing a nasty ear problem — we flew as much as we could.

Csaba Gaal

Imagine my excitement, when in the office I asked if it would be possible to fly here, I was informed by the charming young lady, that both of those planes are available for qualified pilots to fly, for the cost of one German Mark per minute. My God, I thought to myself, here are the planes I dreamt of flying when I was young, and I knew that I would never have the chance. Only eleven Futárs were ever built, and by 1954 the last ones had their C of A expiring. Only the hotshots and the privileged pilots were allowed to fly them. The Június 18s were reserved for pilots with much more experience than I had, or you had to have an instructor who would allow you to fly them. I had none of those, but I had my dreams. Now those dreams may come true!

To establish the credentials to fly, I simply introduced myself to the man in charge. He asked to see my Canadian licence, informed me that there were no requirements to fly your own plane, just line up in the takeoff line and off you go. To fly in one of the Hungarian planes, he requested a checkride with one of his designated instructors and if you are okay, you can fly any of their planes. If you wanted a winch launch, you should have a winch checkride also, as their winch had some peculiarities, such as quitting just when you pull up sharply, so better be safe! He had seen some of the winch operations at the western European airports and was not particularly impressed with the way they pulled up on takeoff, almost brutally. I agreed wholeheartedly.

The payment of 50 Marks was requested to officially register as a participant. This was, I suppose, mainly the cost of insurance for the event. Mercifully there were no accidents, only some minor incidents during the whole event, despite all the crowds, gaggles, and apparent lack of organization. For the licence requirement, either the participant's national licence, or lacking that, the FAI sporting licence, was acceptable. When you paid your money and the CFI accepted your credentials, you were issued a coloured tag identifying you. With a brown tag you were allowed access to the airport, parking (just about anywhere), and after the check instructor initialled your tag, to fly any glider on the field, subject to the owner's approval.

I could hardly wait. At the first opportunity I went to the flight line and lo and behold, there is the Június 18, and nobody was flying it. When I found the instructor responsible for it, I also found that someone had already smoothed my path, as I am offered to fly it without a checkride! All very nice, but I really wanted to have a checkride and I really

wanted to fly the two seater Gobé also. (This is not an antique glider, but almost. The prototype flew in 1960, but it is still in current production and inexpensive. I have seen it many times, I have a model of it and understand it is an excellent trainer.) Off goes the Jünius 18 from the flight line and a Gobé is pushed ahead. You had to be there to believe the hospitality of those Hungarians.

The GOBÉ The Gobé was much more of a plane than expected, definitely having a mother image. Like a mother, she would not do anything to harm her charges. Docile, friendly, but ready to do her duty when called for. Just a few words about it – to say that this thing is not very pretty is being kind. In fact, with its pointed nose, it is almost ugly. The wings are corrugated sheets, the fuselage is partly fabric covered. But the visibility from the front seat is excellent, courtesy of the pointed nose. The span is only 14 metres, which contributed to the excellent aileron response that nearly caught me off guard right after lift off. It really responds! It gives you a month notice for the stall, the spin was honest, the recovery conventional and prompt. Her performance is about 23 to 1, on par with the 2-33. But can you buy a new 2-33 for less than \$20,000, never mind a Blanik? As for maintenance, the Blanik has 1410 major components and 14,442 rivets. The Gobé has 804 and 7280 respectively. Worth thinking about, but I know nobody cares. I think Lloyd Davies of Winnipeg recognized a good thing when he saw it as he had more than one flight in this glider.

The A-15 One of the most interesting gliders I flew was the Russian Antonov A-15. Some information is already available, but a little more can be added to the story. The history surrounding this plane is interesting. To begin with, no individual can own a glider in Hungary yet. All gliders belong to the national sporting organization or to company-sponsored clubs. The story goes that this particular glider was found in a spare parts shipment for USSR Air Force planes stationed in Hungary. The resourceful Hungarians found a way of liberating the "spare parts" and made good use of it! I also recall that the Hungarians had ordered two or three of these A-15s for one of the World Championships that were held in England sometime in the sixties, and one of their contestants had a midair collision during the contest. The A-15 came out of this altercation in a much healthier condition than the other glider.

Back to this particular example – it was once abandoned because it was considered too expensive to professionally repair and be put back into flying condition. Two young engineers, Laszlo Toth and Karoly Borosnyai, did not care about this and took it on themselves to rebuild it, at their own cost, even though they did not own the plane. This way, for all practical purposes, they became the unofficial owners. To illustrate the intricate design and construction, they explained that the wing skins between the formers were chemically milled to reduce the weight. The rest of the construction is commensurate with this – the sailplane is totally out of character with anything else built by the Russians. They did a fantastic job of reconstruction. Everything was shiny, everything fitted well, a sight for

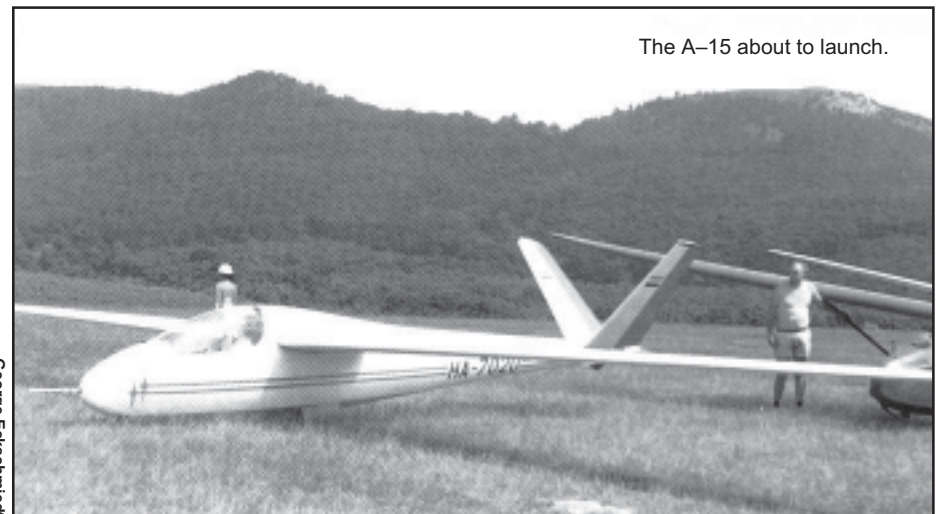
the pilot who appreciates technical detail. Even more fantastic was their attitude. They brought this plane to the Rally only so that other people could fly "their" glider and they accepted nothing in return. I was very happy to be the second Canadian after Csaba to fly this Russian bird.

She was one sophisticated lady. The flight characteristics reminded me of our Grob 103 Acro with the performance of the Jantar Standard. The roll rate was nothing to brag about, but the speed range and the glide slope certainly were. The original book quoted 39.5 to 1 and I would not doubt it. The control response of the huge V-tail was entirely conventional. I would have liked to spin her, but was politely discouraged. But I was also informed that just in case I spin it the recovery must be initiated with the rudder in the center position instead of the usual full opposite. Refined ladies always need special handling. The only item missed was an elevator trim. This meant that the plane had to be flown all the time, unless of course the balance worked out just right with the pilot. In anticipation of the Hungarian and German cooked meals I was going to be subjected to, I lost some weight before the trip, and with my weight I had no problem handling her. All it took was ... think the speed to fly ... and she seemed to know it. I towed to 600 metres, near a huge gaggle of gliders. I counted 24 in one thermal. By the time I overcame my amazement at the spectacular sight and got myself squared with the A-15, I was down to 400. The choice was landing or being the

way, I slow down for a few circles, only to find I am being joined by a Belgian Rhön-sperber. We join circles, but after the second one he keeps closing in on my tail. I am flying slower in this heavy lady than that 1938 wooden wonder! During all this fiddling and experimenting with the speed range, I get close to the stall only when I wanted to. The stall is clean with no wing dropping. Was this really a Ruski plane I think to myself, or somebody just goofed up for the benefit of the gliding world? But it is time to let someone else to enjoy her so I let the gear out and land with the recommended full flap and an ear to ear grin. Smooth as silk.

Pleasures such as these must not be gobbled down; they last a lot longer when savoured slowly, with all the senses involved, leaving a longer lasting impression on the brain. So I left flying the Futár for another day.

The FUTAR The Futár was the glamour girl of the Hungarian sailplane fleet at one time, and in its sexy white paint job it looked the role. Many pilots wanted her in her time, but she was selective in letting her pleasures be enjoyed. The first flight of the Futár prototype was in the winter of 1943-44. (Serial production was to begin in May 1944, but we all know why it did not proceed.) The prototype spun in during the test flight because the pilot was suffering from sunstroke. The repaired prototype flew again for the first time in May 1947. Another ten more were built during 1948-50 and everybody loved her. She was a fast lady with her 20+ kg/m² wing



25th in the gaggle. Heck, what's one more? Flaps full out, slow it down to just above the stall burble and let's see what happens. Miracle of miracles, we went back up to 800 metres, catching up with the gaggle. Time to find my own stuff. I head out, and on the way I find a Weihe circling under a cloud. I join her, and to my greatest surprise the A-15 keeps up. I look around to see if I am carrying an anti-gravity machine! We gain a couple of hundred metres, maintaining the same separation. I feel that it would be almost sacrilegious to gain on a Weihe, "Queen of the Floaters".

Trusting the A-15's superior penetration, I head over to the city. Finding good lift on

loading, which made her more endowed than any of her contemporaries.

I am still unable to figure out why, by 1954, only four years after the last ones were completed, the Futárs were not seen at the airports. We young C badge pilots and other lower forms of life knew that no more would be built, heard about her excellent handling characteristics of low control forces, responsiveness and stability in turns, that it was faster than anything else before, so we just dreamt about her, knowing full well that she was unattainable for us. We were born a little too late.

Now here she was for me to try out. I never

asked how old she was, where she came from – you would not ask that from a glamour girl, would you? If she was on the flight line, there must have been a perfectly satisfactory engineering reason why she was entitled to be there. The cockpit was indeed roomy. One of the British chaps who flew her before me said that it reminded him of an English tea garden, with its many little nooks and crannies (whatever that means). In those days blown canopies were unheard of, plexiglass did not yet find its way to gliders and most canopies were made of flat celluloid sheets. These tended to turn yellow in time. The Futár had an improvement over those as the whole canopy was made of flat but slightly curved plexiglass pieces with the very front piece optically flat but bent in a U-shape. These pieces were held together by wood frames, thus the many-windowed look. I remember well that in those days the visibility from the Futár was heralded as one of her many desirable features.

Glamour girls have their own behavioural patterns. One of the first things I noticed about her was when I was ready to fly and looked up; instead of the sky I saw plywood! Good visibility? Of what? While flying the inevitable gaggle this proved itself to be one of her less desirable traits. While I was tying myself in, I noticed that lap harness locking device handle was a small pear-shaped metal ball about the size of a large egg. This was the same on the A-15, but none of the other Hungarian gliders had it. You could kill someone with a thing like that. Why did they put this Ruski stuff in the Futár I will never know. A piece of leather would have been much simpler, lighter and safer. On harnessing myself in, I found this metal pear residing under my right elbow. Not wanting to make a fuss, I proceeded with the takeoff. Well, the airport has a few gopher holes. The wheel hit one of them just as flying speed was reached, the elevator jostled my elbow, hit the pear and the pear opened the buckles. I was only about a foot above ground so I pulled the release immediately and let her land straight ahead. The tug proceeded to take off and completed the circuit. As far as I know, this was the only incident during the whole Rally!

So, the Futár was towed back to the takeoff line with an ancient tractor and was put ahead of everybody else. I felt almost embarrassed for this special treatment. The harness was examined, I resolved that nothing was out of order. As I usually hold the stick very loose (the result of years of back seat flying with students and just following through on the stick; you can do it on the Blanik) I re-

We mountain pilots at Hope often fly wingtip to wingtip and practically brush the trees at 4000 feet, but we do not circle in a gaggle very often; so I was very interested in maintaining a reasonable vertical separation. I kept looking up, only to see the piece of plywood. Hey, glamour girl, what kind of form is this? Regardless, we got some safe altitude and I began to pay attention to the controls. As I

was saying, we were circling left, but it felt as if my right foot was stretched more it should have been. Left circle, right rudder. Hmm, something did not add up. The ball was in the middle so I was reasonably clean; they do not use our beloved yawstring, I saw those only on the British gliders. The Futár having in-flight adjustable rudder pedals, I tried pulling them closer, but the effect was the same. Enough of this, let's try right turns. You guessed it — almost full right rudder had to be used to keep the turn clean. I believe this was not characteristic of all Futárs, just this example. After these two minor idiosyncrasies were realized, we got along reasonably well and flew her around for an hour. But I kept think-

The Hungarians presented a newly built primary, the Vöcsök, a newly built two seater, the Cimborá, a Futár – a most handsome sailplane built in 1949, a Június 18, an IS28B2 Lark (nicknamed "Big Iron" in Hungary), and the Gobé trainer. The Antonov A-15 was aerotowed from a club 250 km away. Built in the mid 60s, it's an 18m, V-tail, all metal ship that still flies an honest 39:1! To the best of our knowledge this is the only ship of this type still flying, and it was a privilege for me to be the first Canadian to fly this Russian sailplane. Also among the participating gliders you could find most of yesteryear's great planes: the Wasserkuppe's oldtimers rebuilt a 1936 Habicht (open cockpit, gullwing, aerobatic beauty), a Doppelraab V (two seater trainer with only one control stick!), a Kranich III from the 50s, several gull-winged beauties: the Spalinger S-18 III, Slingsby T-13 Petrel, a Kirby Kite from 1937, and of course the highlight of the show – three Minimoas – one from the States and two from Europe. There was the French Bréguet 900 and a Fauvel flying wing, and the British Slingsby T-31 "Yellow Brick" or "Blue Brick" (according to their colour). I had a ride in the "Blue Brick" with a young British instructor in the back of this open cockpit primary: on tow you must use all controls to their fullest extent to maintain a resemblance of control – the wrestling was accomplished entirely with my right hand and feet, the left hand held alternatively my glasses/hat/side of the cockpit. It took 17 minutes to get to 2000 feet on tow and 6 minutes to land after that – I am almost convinced that aircraft designers discovered the L/D concept after a ride like I just had.

Csaba Gaal

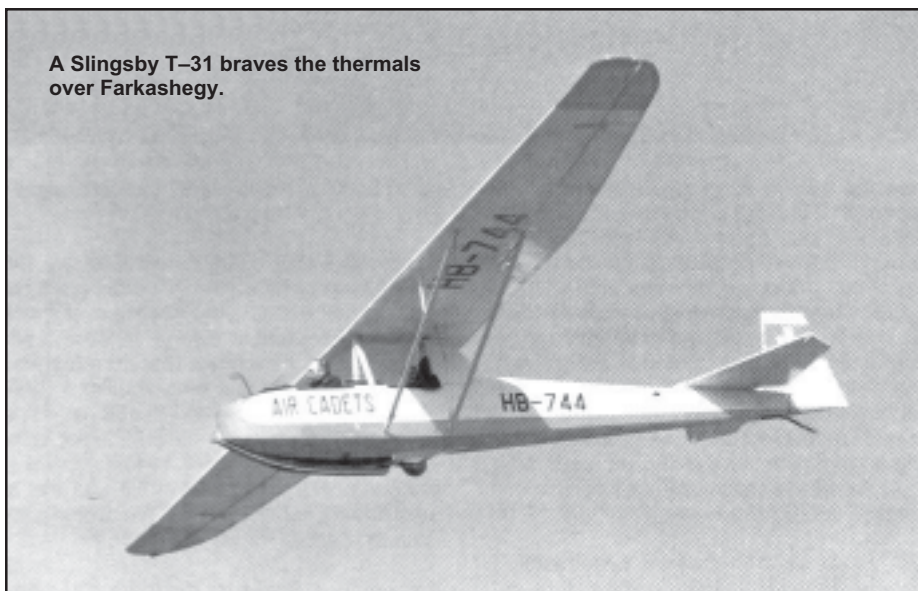
solved that nothing will move my arm unless I want it to, and holding my elbow conscientiously well above that metal ball, I took off. This time I also managed to avoid the gopher hole. The tow was uneventful, smack into the gaggle. Everyone was circling left, so naturally I had no alternative. The Futár was doing fine for a while, so was I; we were climbing nicely.

ing that it is no wonder that they wanted to further develop her. Her nose, her projected side area, the cute gazebo or English tea garden sized cockpit seemed very large compared to more modern gliders and the rudder is almost shadowed by this wetted area.

After landing we discussed my findings. Other pilots noticed the effect also but did not want to say anything. Others did not notice any problems, they were too enthralled with her. All pilots who flew after me reported confirmation of my observations. We checked the rudder pedal position relative to the rudder and all seemed to be centered. The only speculation we could come to was that the fuselage must have been twisted during storage or some other time-related thing.

I enjoyed having flown her, but I almost thought that I wished I didn't. That way the old dreams of perfection would have remained intact.

Just around the time I started to fly in Hungary, the people at the helm of the gliding movement sold the idea to those in real power, that gliding should be a mass sport. This would assure sufficient cannon (cockpit?) fodder for the airforce. For this they needed more gliders, and for those almost ready to join the forces, the Futár should be further developed. Thus the Június 18 was born, and thus the reason why there were no more Futárs built.



A Slingsby T-31 braves the thermals over Farkashegy.

Csaba Gaal

The JUNIUS 18 When my turn came to fly the Június, I don't know who pulled what strings but the plane was pulled ahead of the twenty or so other gliders waiting for take-off and I got in. Speaking the tongue of the natives and being remembered 33 years later definitely has advantages.

The Június 18 is something else. It is made of wood, of course, and first flew in 1950. It looks very much like the Libelle of much later vintage. It has a much reduced frontal area, allowing directional stability to be derived from the vertical stabilizer instead of the canopy. This example, resurrected from who knows where, looked like a 1954 vintage, with full Schempp-Hirth divebrakes. The earlier versions had an ineffective "Rubik flute" spoiler system, called so because of the sound effects created by it. Each spoiler was made from meshing U-shaped aluminum channel pieces. When open, twelve pieces of aluminum channels subjected to the airflow made the most amazing sounds, but they were inadequate as divebrakes.

A young fellow confided in me much later that the C of A for this machine was issued only for three months, just so that we could fly in it. It would not have mattered if I had known this earlier. I would have flown it anyway — even more gingerly perhaps, but its age would not have mattered. I was in love!

How I remember hearing the stories in 1952 that the glider was slippery (28 to 1!), difficult to handle and a handful to fly and only those with lots of experience should fly it. I got my C badge in 1954 and even in 1956 I still did not have the required qualifications to fly her. I did not have the good connections with the instructors which was so needed to progress quickly. Yet the Június 18 was the aspiration of all glider pilots. Not really their dreams like the disappearing Futárs, but their aspirations as these planes were still realities — all be it far away ones. By now, I thought I could qualify, but still was ready for the worst.

The cockpit was very comfortable, lots of headroom even with my Tilley hat on. I should not even mention the visibility; it is 370 degrees if you wish. My biggest surprise came when the plane began to move. Now I had only one flight in a Ka6 (thanks again Lothar), and I have read a lot about the Ka6 handling. But this Június 18 was so pleasantly coordinated, so nice to fly that I immediately thought of the "6". So this was the big, bad Június 18, the aspiration of 19 year old boys who thought they never would fly in it. But it was so sweet, so responsive but gentle that I felt as a young boy could feel with a more mature lover. She circled beautifully, demanded little from me. She responded to the touch and was appreciative of any attention. Centering her was no problem, and she was not about to drop a wing. I could not find a single negative thing about her. Recovering from my ecstasy, I realized that my thinking was in a time warp — I was looking at this plane from the current state of much more massive and clumsier Jantars, Grobs and ASWs. Sure, the new sailplanes have better performance, but they don't have the class of this middle-aged lady. After an hour of sheer delight I landed the 18 very gently with the greatest of care, being grateful for

the pleasure afforded to me by this old girl. After my flight when I saw anyone else flying her, I felt just a little bit jealous.

My time for the Rally was coming to the end. On the last Friday morning I was hanging around the takeoff line, still soaking in the beauty of it all, watching the Hungarian Cim-bora two-seater and the Vöcsök primary.

The CIMBORA The Cim-bora was very popular during the Rally, she was put to good use for various rides. There I was looking at this old grandmother thinking, should I fly her? My memory contained wonderful illusions, although I had only one ride in her before, sometime around 1952, during which the instructor would not even let me touch the stick. That was the last flying example, "they" were going to scrap her, so I got a ride, a reward for good behaviour. The prototype of the Cim-bora first flew in May 1940, with Mr. Hefty senior at the controls. Her fuselage is naturally finished, with a swept-back wing of 15 metres sitting on streamline tubing. The L/D was quoted at 14; minimum sinking speed at

I have not had a winch launch for about 15 years, much longer than that with a nose hook, and the Vöcsök, in the line-up behind the Cim-bora, was winking at me. I found myself buying the winch ticket and the circuit time for the Cim-bora for a checkflight. Once again I was told if I wanted to fly the Vöcsök I didn't need the flight in the Cim-bora as I had flown the Vöcsök a lot in my youth, but by now I convinced myself that I wanted the Cim-bora too, so I had to convince the duty instructor to come with me for the winch refresher. The whole flight cost me 10 Marks (about six bucks for the whole flight, eat your heart out!).

Well, like all grandmothers, this one did not let me down either. She was rather roomy, friendly and not very argumentative. Most of all, she was breezy. During the launch I was surprised how well I heard the instructor's command to pull harder on the stick. We got to about 270 metres, not enough for anything but a circuit with a 360 on downwind. We did not have a thermal at that spot but did the 360 anyway. She turned politely, courteously,



The Vöcsök primary trainer taking off on the winch.

George Eckschmidt

1.1 m/sec. Because of these figures and the excellent sideslipping characteristics, no glidepath control was incorporated. Could she ever sideslip! That was one of the more remarkable sights I remember when seeing her landing.

As I was remembering my current experience with the Futár I was debating with myself, should I risk shattering my memories with a new experience? Should I rekindle the fires of my first love, the Vöcsök, or should I keep the memories undisturbed? This little lady had already reached the status of an untouchable, priceless, almost holy relic in my mind; I was delighted just to see her and pat her on her pod in 1985.

One of my principles in life that has got me into much trouble already is that when I consider the possibilities of doing something or not, most of the time I tell myself that I will be damned if I do it and I will be damned if I don't do it, so I might as well be damned for doing it instead of later regretting missing the opportunity.

just the way you would expect it from a frisky grandmother. Not too fast, not too slow, just right. Continuing the circuit, I turned to final just a bit higher than needed. Now for that sideslip. Whoa — better hold onto your head as the wind may just knock it off your neck! Nose high, the ASI reads zero, but your ears tell you otherwise. Slip down to about 6 feet, a touch of opposite rudder and she was straight as an arrow, to the spot a few feet beyond the marker. What a Grand Old Lady this Cim-bora was.

The VOCSOK The Vöcsök could only be launched on the winch or rubber catapult. Just last Sunday I was watching the nostalgic bungee launch in the hills from the very spot I earned my A badge in 1950, but now we were at the bottom of those hills and bungee launches were not offered any more. Heavens, it took ten men on the rubber ropes, one on the wingtip and one at the back release to get that Vöcsök to float for 30 seconds. This latest Vöcsök replica was flown by many people on the winch, most landing very long. Even the current hotshots were appre-



A very rare sight indeed – three Minimoas in the launch lineup.

Csaba Gaal

turn you could feel if you were skidding or slipping — the airflow let you know. Wonderful. You had to force her to turn incorrectly.

I realized that nature and this plane taught us to fly, not an instrument, not a procedure or not an instructor. How unfortunately shortchanged we are by not having this opportunity for all new pilots. During the last decade or so I used to think back, "Gee, we learned to fly solo right away, wasn't that something crazy?"

During the last few seconds I realized that that was the most natural way to learn to fly, much more natural than in our multi-kilobuck metal and glass cocoons.

Half way on the downwind leg, still no thermal. We were taught that that was about the last place where we could still circle, and circling below 200 metres was strictly prohibited. How do you know that you are above 200 metres in a Vöcsök with no altimeter? You learned to judge it by the circuit height half way in the circuit after a normal winch launch. Simple, is it not? Once again, circling was sweet, she was responsive, obedient, good natured, seemed to have enjoyed the flying as much as I did. Continuing downwind, I did the regulation circuit that "they" so diligently taught me (though by now, "they" seldom do it) turned to final at 100 metres. The Vöcsök, despite the relatively small wetted area, sideslipped very well. I slipped her to quite a low altitude and touched her down with full flare just a few feet beyond the landing spot marker "T". We did not even need to lift her, just dragged her to the start line.

I was still grinning from ear to ear when an unknown, or just unremembered person, came to me and very casually said, "You used to fly the Vöcsök a lot, didn't you?" — No person has ever payed me a greater compliment.

My mind never landed for days after. That simple circuit allowed me to re-live a part of my life, a memory that was almost as wonderful as would have been reliving the memory of a teenage love affair. Few men are as fortunate, but I am one of them. Yes, I love that Vöcsök, the frisky, wonderful, youthful, simple little glider. She was very much part of my early life and, as the saying goes, "You always remember the first one."

Some observations about the Rally:

It was reported that over eighty gliders were pre-registered and they lost count how many actually showed up. There were a lot of them, estimated over a hundred.

All costs were expressed in German Marks. Hungary is very much in need of "hard" currency. The national organization is just as short of funds as we are and this was one

hensive of having no water ballast, no dive-brakes, flaps or even a canopy on her, never mind that most participants did not seem to know how to fly even a semi-proper circuit – mandatory for this sort of glider.

By now there was nothing that could hold me back from the Vöcsök. It is often said that we never forget the first one! Now here is the opportunity to re-live that wonderful experience. The Vöcsök, as appropriate for the first timers, was a light, wonderfully youthful glider. She came to life in 1937; her designer was one Mr. Rubik, the father of the cube's inventor. She was light, only 110 kg, her wing span only 11.6 metres. Would you believe an L/D of 15 with V_{sink} of 0.9 m/sec? Well, that's what she had. What she didn't have was instruments. I recall one of my early soaring flights in her when I discovered only during the flight that someone had installed an altimeter, and I was at 900 metres and there were planes much below me! Believe me, those were heady experiences in those days for 17 years olds. A lot of her sisters were built, over 300. Those were the attempts to make gliding a mass sport, remember? If it would have been up to the Vöcsök she would have succeeded. Trust man to spoil things. Regardless, many thousands of pilots learned to fly on her, as she was the glider to fly, up to and including the 5 hour task. There are few things that more than three Hungarians together can agree upon, but one of them is that the Vöcsök was and still is the world's best glider. Maybe because she was the first to so many of us.

She was really carried by three people, one under the tail (usually the pilot who just landed) and one under each strut. The Rally organizers summoned the current student body to help move the gliders around and I saw the same 15 and 17 years olds as we were, gingerly lifting her and bringing her to the takeoff line.

Now, to re-live the past. We were trained to place our left hand on a certain spot on the pod. I found myself instinctively executing that motion. I would have never remembered that unless I actually got into the cockpit. No need to give the thumbs up signal, you can just whisper that you are ready. I did the cockpit check and a lot of the usual items

were missing! They must have shortened the stick to accommodate the instrument panel as the standard three instruments were there. No trim, no spoilers, no canopy to close. (God, when you think of it, one broken canopy these days cost a lot more than that whole plane did.) As I had never flown her with an ASI, I actually had to ask what speed should I fly – 60-65 km/h was the answer, and that is still fast for her. The minimum sinking speed is at 50 km/h.

The takeoff started. The first thing that almost startled me was the air on my face. Even the Cimborá had a small windscreen that was amazingly effective. In the Vöcsök you sit straight up and literally face the airstream. I recalled that during our training we were not even allowed to wear sunglasses as it was thought that they would distract one's attention from sensing the airspeed. The airflow brought tears to your eyes. When you felt the cooling stream of your tears on your cheeks at a certain place, your speed was good! Only after you had your C exam completed would they allow you to wear glasses!

Well, I was wearing my flip-up glasses and my Tilley hat and they both stayed on, so things were just great. At about 100 metres I started to pull a little, just so that I could try to induce a little of that so well known oscillation, but I did it only a little. The winch operator and the Vöcsök were watching diligently. The towing speed was 65 km/h, just perfect. Towards the top, the application of a little right rudder provided the view of the whole length of the winch cable, from her nose right down to the winch. As I began to consider releasing, she let me know unmistakably that it was time. In the originals the release hook was open, so when the cable slackened it fell off automatically. It was great and never failed. This original hook was installed on the Cimborá, but the Vöcsök had a Tost hook, so the release had to be pulled. I pushed the nose down and pulled the knob. She also let you know that the cable was dropped. I thought that the push over was more than enough, however, a video of the flight did reveal a slight pitch up. This time we got to 290 metres. Wow! I wished for a thermal right now or within the next 20 seconds, but no luck. She started the first turn beautifully. Even during a 90 degree

way they were trying to gather some cash for new gliders. All of the work for the Rally was done by volunteer labour. They never stopped bragging about this, since the concept is relatively new to them. I kept repeating that in our national organization there is only one paid employee, doing essentially clerical work, and all other work is voluntary. I think it did not even register to most of them.

Aerotows cost 16 Marks to 600 metres. The service provided by the towpilots was really commendable. You almost took them for granted, I am certain many pilots did. The towplanes used were two Russian behemoths (I forgot the type designations), and a Wilga. Some days they had three of the Russian machines. They had a huge radial engine and were able to fly very slowly. The towpilots knew what speed to tow, where to tow; always to a gaggle, if there was not one nearby (seldom happened), then into a thermal. They just seemed to know where to go. They towed relentlessly, all day long. But when they decided to quit, that was it. Once I was sitting in the "Blue Brick", all strapped in, when they decided that the tailwind was too much and they would not tow. I would have launched but there was no appeal. Few people earned my admiration — those towpilots did.

When I got trained in Hungary, we never learned about formal cockpit checks. The hangar manager looked at the glider, we got in and flew. We had to know how the controls were connected, had to make neat drawings of them in our work book, but DI's and cockpit checks were unknown. "CISTRSC" was new to me in Canada and was I ever glad I learned it. It sure helped in getting myself oriented in those different gliders.

Csaba and I were somewhat disturbed by the apparent lack of proper circuit and other procedures by most of the participants. For this reason the Canadian participants paid special attention. I actually confronted one of the organizers, who happened to be one of my early instructors, about this. His answer was worth thinking about, because I think it reflects the attitude of a gracious host, anywhere, on any occasion. He said that all these people are the guests of the soaring movement and the guests of a country. You just do not tell guests how to behave. They should know. The host should not try to change the customs of their guest. When they fly alone at the field, they do fly proper circuits and fly according to the international standards and conventions.

Imagine a field with one winch takeoff line and one aerotow line, each fed by at least 20 to 30 gliders. They all have support crew, they are also participants without gliders who want to fly, there was the line crew, the organizers and there were many visitors. All this resulted in wall to wall (well, ditch to ditch) people. People were all over — natives, photographers, visitors — all mixed. Csaba and I were looking at this with amazement as we could never see anything like this at our super-hygienic Canadian airports.

We finally discovered the method in their madness. To begin with, most of the gliders had no radio, even if they did it would have

been of little use, remember Babel? But there, on a small, about 10 foot high tower stood the starter. He had a radio, the winch had a radio, and all the towplanes also. Nothing moved until the starter said so. There was no shouting, no pushing people around, no excitement, no hassle. When he said to go, you went. Each starter had a half a day shift and they did a remarkable job. Reminded me of the lifeguards on a beach.

Amazingly, no serious ground or air incidents happened during the whole Rally (I think my seatbelt situation in the Futár was, mercifully, the worst). Looking at the overall situation, the apparent looseness and lack of rigid controls and directives, yet things were happening smoothly — I began to wonder if we in Canada were over-regulating, over-controlling ourselves? Perhaps a question like this should not come from a member of the Flight Training and Safety Committee. But are we getting rigid because of the possible loss of material value in an incident? Does the possibility of lawsuits resulting from accidents frighten us?

The participants made an interesting international mosaic. Most prominent were the Germans and the British. Most of us developed a good rapport with the folks from that sinking island — being able to speak their

and the local's tongue helped. They were charming people, easy to make friends with. Some of the things noticed about them were — unusual. Most of the gaggles were circling left. When British gliders joined it they usually joined it at the top and started circling to the right. We just shrugged our shoulders and booked them in as driving on the wrong side of the street too. One committed the ultimate sacrilege — landed out the Június. Poor show old chap! She had no trailer, so could not be flown for the rest of the day.

The Germans were the most numerous, had the nicest gliders, and brought the best sausages and the most beer for the International Evening. They were also very friendly and let everybody know it. But then everybody was.

The Americans were represented by Ian Scott with his Minimoa (he has eight other antique gliders too), and Bela Szalay among others (Bela was my clubmate for many years in Hungary but I had to see his old logbook to realize that we were once friends). Oh well, he got older, I matured! Ian and his entourage cooked up a giant cauldron of chili for 400 people. Hungarians like hot food, so that choice was an unprecedented success.

Would I do it again? Any time. If I win the 6-49, you are welcome to try MY Vöcsök. •

The weather was beautiful: every day but one was sunny, the cu were forming around 10 am with eventual 4-6 m/sec lift being common. On some days the wind blew perpendicular to the Farkashegy ridge where most of us learnt to fly ridge lift and it was a sight to see so many old birds making figure eights together. And here I must note something: I felt scared to fly the ridge with some of the oldtimer pilots, many of them flew in close proximity to me and more often than not their eyes were glued inside their cockpits, on the vario. They were joining and leaving the ridge like they were the only aircraft for miles. When one of them overtook me no more than 3 metres above my cockpit and started turning ahead of me in sink, I had enough. I aimed the Futár over to the open fields and was lucky enough to be awarded a good thermal at about 800 feet. This thermal then took me to almost 2000 metres. From that height the sight was awe-inspiring: the world's most beautiful city — Budapest — is under your wings. You can see the beautiful Danube flowing through the centre of the city, slender bridges reaching across it, landmarks, the hill of Buda with the Royal Palace and Halaszbastya, the flatlands of the Pest, I could almost touch the neighbourhood I grew up in, the boulevards, churches, airport — it seemed I could fly anywhere, it was only a glide away!

Down on the ground the operation was in full swing: on the left of the field winching was in progress that alternated with the towing of vintage gliders on the middle. Planes usually landed on the right side of the field, level with the starting line. There were times when — it seemed — all the 50 plus vintage planes were waiting in line for launch. Sometimes delays were unavoidable when the Grunau 9 "Skullsplitter" was winched up to a dizzying height of 100 metres, it could only turn around and land immediately.

To our surprise, George and I discovered the total absence of certain rules there that we take very seriously in North America — it was quite common to see several aircraft flying over on top of each other at landings, "base leg" was approached from any which direction or none. Thermals were saturated by pilots busily looking inside the cockpit, with equally good thermals a few hundred metres away. Several times I was thermalling (and often outclimbing) gaggles of 24-28 planes only a quarter mile away. I guess old-timer pilots like to live dangerously.

In the evenings, after the long flights during the day, most pilots and their families got together, had supper in the converted hangar and told soar tales to each other. It was also time to renew old friendships with old instructors, make friends with new pilots. Most of us have standing invitations to visit gliderports and pilots in many countries in Europe and the USA. The International Evening was a great success too. Groups of participants from many countries offered their best for tasting: cheese from Switzerland, beer from England, chili from the USA, sausages from Austria, etc. were a resounding success. After that night there were decidedly fewer pilots ready for an early start next day ... We vowed that the friendships we have and the new ones we made will be forever, or at least until we meet again next year at the 18th Oldtimer Rally in Belgium.

Csaba Gaal

EVERY CLOUD HAS A SILVER LINING

Marek Wakulczyk
Cold Lake Soaring Club

Just the facts? Not really, but this story will describe how this low time pilot mustered up the courage to leave the homefield. Had anyone told me that my upcoming flight would last over five hours, I would have laughed.

07:30 The CFB Cold Lake weather office was right so far: mild temperature, high humidity, and a clear blue sky welcomed the four of us who came to inspect and push out the gliders. The Bergfalke (C-FDLP) and the K7 (C-FHFN) were eventually pushed to the launch point. By 10:30 hazy spots are appearing over the base and we are slowly being encircled by cumulus. Three students are now here, but still no sign of the other 20. Perhaps they were frightened by the forecast of "... possible thundershower activity in the late afternoon." Fred and I return to the bunker to wash and inspect the 1-26.

11:10 "Marek it's your turn to fly," I hear someone say. Who am I to argue. I grab my sweater and position the 1-26 at the launch point. I tell the time keeper that I will get hamburgers when I come back.

11:16 "Cold Lake Tower, Yankee Oscar Whiskey is ready for takeoff from the parallel to 04, glider X-ray, Quebec Lima in tow." ... "Yankee Oscar Whiskey, you're cleared for takeoff."

The roar of YOW's engine fills the air and the 1-26 is soon airborne in the slight headwind. As we climb, the turbulent air plays havoc with my attempts to maintain a proper tow position. Approaching the 200 feet release point, I find that there is no traffic in sight and so pull the release and break right. As I level off I notice that the variometer is still indicating 100 fpm up, and I assume that the lift is coming from the elongated cumulus cloud close by. Proceeding towards its upwind side, my doubts are confirmed as the rising hot suddenly pushes me away with a 30 degree bank. Excited more than intimidated by the show of force, I immediately turn into the thermal. The variometer stabilizes at 800 fpm as I continue my circular pattern.

"Cold Lake Tower, glider Quebec Lima is crossing the button of 22 at 8000 feet asl, heading south." Drifting south, I say to myself. "Roger." In the distance I see the Bergfalke and the K7 sharing a common thermal over the north side of the base.

12:30 Still gaining altitude at 200 fpm, I intently look at the area I call home. Only in Cowley had I ever made such an altitude gain. I smile at the beauty of the farmland and notice a military helicopter flying several thousand feet below.

Goose bumps snap me back to reality, and remind me of the standard lapse rate as I reach 8800 asl. The goose bumps also remind me that it is quite silly to be so high, on such a nice day, without some sort of goal or objective. Until then my primary objective had always been to maximize the flight duration, but it was becoming obvious to me that such a goal was minor on a day when the sky was filled with powerful thermals. Should I dare venture beyond gliding distance of the nest? Nope. No way! No, not I.

12:30 "Quebec Lima, Cold Lake Tower." "Tower, Quebec Lima." "Quebec Lima your Glider Ops has cleared you for a five hour flight." "Thank you very much Tower."

A simple message, but one that implied many items: the confirmation that no one else wanted to fly the 1-26; an amiable reminder of the Silver badge time requirement, and support from the CFI and the others on the ground. It was also a way of being told to stop hovering like a helicopter, and start using the 1-26 for its intended soaring purpose.

13:45 I decided to choose a target destination as soon as I had completed my cross-country checklist: Water? none. Food? none. Maps? none. Barograph? no. \$0.25? no. Crew? none. Camera? no. "Cute", I comment to Murphy, "but had I brought everything, I bet you would have brought me to the ground 90 minutes ago."

Faced with the list of missing items, and my own nervousness, I declared that my target was the shore of Cold Lake. Okay, so maybe the 8 mile target was not exactly a 300 mile triangle. Big deal. Having finally established a goal, I looked towards the patch of clear blue sky that lay between the lake and I. Breathe in, breathe out, scan and turn towards Cold Lake. No sooner had I established the new course, the altimeter began circling counterclockwise. Three thousand feet later, and no closer to the lake, I begrudgingly retreated back to the security of the thermal I had left. Far from being beaten, as the altimeter climbed back to 8500 feet I once again got on course for the lake.

14:45 "Well I didn't break any speed records that time", I said while I circled at 8800 over the southwest shore of the lake. And although it had taken nearly an hour to cover the short distance I felt proud of having reached the target destination. Besides, I had learned many lessons. The first was that a straight line was not necessarily the best way to get somewhere - especially if it entails surviving the mental stress of seeing the variometer pinned at 1000 fpm down. That lesson also meant associating such sink with cumulus clouds that have a flatter top and a wispy bottom. The second lesson still dealt with cumulus clouds: those with a bubbly, white top and a dark grey bottom are actually

camouflaged vacuum cleaners; but those with both a white top and a white bottom are at some stage between the two.

At this point those competition class pilots have either rolled their eyes and moved on to another article, or are laughing energetically.

15:00 Being limited due to the absence of my VFR map, I decided to go west along highway 55 until the point where the road turns south. I estimated the distance to be 15 miles upwind. I was again quite determined to reach this new objective, and to put to good use the lessons that I had learned. As I once again left the shadowy security of the thermal and entered the bright sunlight, I looked up in awe at the white, colossal cloud that had given me lift.

15:30 "Quebec Lima, Cold Lake Tower." "Tower, Quebec Lima." "Quebec Lima, Glider Ops would like to know your health status." "I'm feeling fine, thank you."

Well, actually, now that I think about it, my legs are stiff, I would not refuse a drink and peanuts, and the ballast bag that I am sitting on has probably marked me for life. But other than that I am feeling fine.

15:40 Having successfully put my new cloud hopping techniques to the test, I returned to the invisible barrier at 8800 feet. At that point I had become quite content with observing the marsh lands south of Ardmore. I was quite fascinated to clearly see the path where a river used to flow. I wondered how long it had been since it had dried up. As I looked east towards the base I saw what I believed to be the setting sun's reflection off one of our gliders.

"I want to go home and play with the others," my heart said. And so I looked around and plotted a cloud hopping course back towards the base. As if to help me home, the westerly winds had increased to 10 knots.

16:17 "Quebec Lima, Cold Lake Tower." "Tower, Quebec Lima." "Quebec Lima, Glider Ops would like to congratulate you for crossing the five hour mark." "Tower, thank you very much." "S-U-C-C-E-S-S..." someone cried out, breaking the silence.

16:30 "Cold Lake Tower, glider Quebec Lima is entering the training zone at 8000 feet asl." "Quebec Lima, roger, altimeter setting is 30.07 and winds are 270 at 10 knots gusting to 15."

It was good to be home. A mile ahead I could see the K7 ascending rapidly, and below me I could see the Bergfalke approaching the circuit entry point. Yes, I think it is more enjoyable in the company of other gliders. There is something special about sharing a good flying day.

16:49 Back on the ground five hours and thirty two minutes later. Wow! How time flies when you're having fun. The handful of club members congratulate me. It was quite heart warming. ... Between you and me, had you thrown a rock high enough, it too could have stayed in the sky all day. •

A CAT AMONG THE PIGEONS

photo unavailable

A HOT NEW AEROBATIC GLIDER FROM SOUTH AFRICA

Trish Durbin

IMAGINE BEING ASKED to design and build a new, custom built aerobatic glider that would turn the world of sailplane aerobatics upside down. Then imagine starting work in January 1989 and having your baby ready to fly in the World Glider Aerobatic Championships in August that same year.

It was during a tea break at the 1988 CIVA meeting in Amsterdam that the late Helmut Laursen and Carl Berger approached South African aerobatic power champion Peter Celliers and asked if he felt like designing and building an aerobatic glider. Celliers chuckles at the memory.

"When they suggested it," he says, "Up to that stage I had never watched an aerobatic glider perform, been in an aerobatic glider or even seen an aerobatic glider. So I said give me your aerobatic glider catalogue so I can see what you want."

What they wanted – and got – was a fully certified, not experimental, aircraft which was christened the Celstar GA-1, after Celliers' company, Celair. Celliers is a dynamic man who flew his new glider to a second and a first place on two out of three days at the Third World Glider Aerobatic Championships in Hockenheim in 1989 with virtually no soaring hours under his belt.

"I just got my glider pilot licence in time to test fly it," he says. "I had less than an hour in it when I came to Hockenheim. I'm still not allowed to leave the circuit!"

He has a little more time and experience in power aerobatics however – nine years. He attended his first Power World Championships in 1982, flew the Hilton Masters in Miami in 1985, and has been South Africa's Unlimited National Champion from 1984 through 1988. He became the South African delegate to CIVA and is currently their second Vice-President.

Flying began as a hobby that became quite useful during working hours, bearing in mind South Africa's vast spaces. As with many people captivated by the challenge and freedom of flight, it also became a major love.

Born to be an entrepreneur, Celliers qualified as a Civil Engineer, and has had a remarkably diverse career. He inherited a farm called Roodewal (Red Bank), being near the River Vaal on the East Transvaal near Johannes-

burg, on which he raises cattle. He once owned a coalmine and now runs a construction company concentrating on township and housing development. Based on his farm, his business started life as an aircraft maintenance organization that has expanded into the development, manufacture and export of power aircraft and is the South African agent for new and used Pitts and Husky aircraft.

The suggestion that Celliers might develop an aerobatic glider came with fortuitous timing. Celair was in the process of producing a six seat, high wing, single engine tail dragger, already christened the Celair Eagle. All the research, business contacts and manufacturing capability were in place. When Celliers originally contacted the Council for Scientific and Industrial Research (CSIR) regarding the design of the Eagle, he met François Jordaan, who had a fun job as an aerodynamic designer using CSIR's wind tunnels. In July 1988 Jordaan joined Celair as production manager and in November 1988 the aerobatic glider suggestion came along. It would make a great time-filler while they awaited certification of the Eagle.

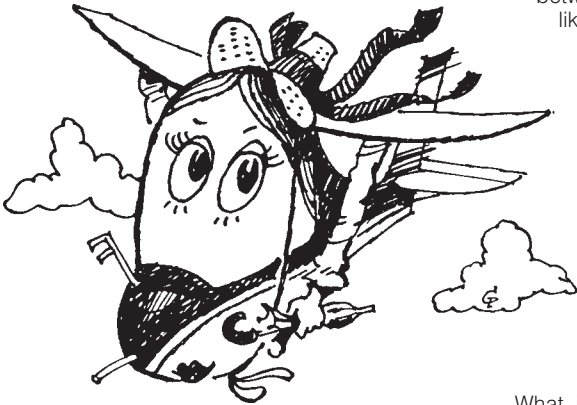
Jordaan was with Celliers at Hockenheim, and willing to talk with pride about the design of the little ship. He takes up the story:

"Since we had all the manufacturing facilities for comprehensive aircraft construction,

continued on page 15

REQUIEM FOR TWO LADIES AND A TRAMP

David McAsey
Cu Nim Gliding Club



EVERY WEEKEND MORNING (and three weekday evenings as well in summer), the two gliders sat stolidly on our club's flight line, unlikely symbols of man's ancient dream of free flight. Their bulbous noses were fibreglass, but with a hole like a large single nostril at dead centre, topped by a pitot tube like a stiff, misshapen whisker. The overall effect was anything but graceful. Below the nose was the long, ugly line of a nose skid.

Swelling like a pouter pigeon's chest, the canvas exterior then tapered off to small angular slabs at the tail. Metal wings with massive chords seemed far too ponderous to ever become airborne. Reinforcing the impression were struts that looked sturdy enough to prop up a small house.

These were our 2-33As, but most of us who soloed in them remember them differently. To the student, they were like perfect Victorian maiden aunts, devoting their lives to the tactful improvement and protection of their callow nephews. They underwent violent if unintended abuse without a whisper of complaint, and made the dream of solo flying a reality for generations of ham-handed and lead-footed members. Persevering on a bit of duct tape and the occasional squirt of WD-40, they impoverished our local mechanic.

Above all, they were ladies and never forgot it. Sporting their massive struts like sturdy Oxfords, they were indestructible in situations that would have sent almost any pretty young ship to the emergency ward.

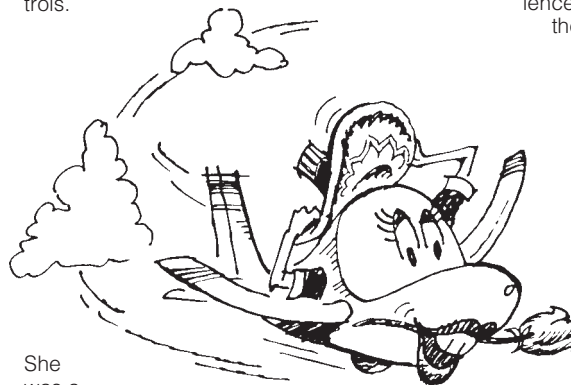
Gently mushing behind a tug, the 2-33 made it almost easy for a new student to believe that someday he too could fly in formation. Thermalling, the 2-33 was transparent in her intentions, loudly protesting to warn the neophyte that he was close to the stall. "Flying by attitude" was a cinch: the difference

between 45 and 60 miles per hour seemed like about 45 degrees. Nor was there anything subtle about a slip. The aircraft flew sideways as eagerly as it did forwards, and the ASI always told the truth during the process, relieving the seating student's anxieties about a stall on final. What other glider would (or could) put up with being dropped vertically from 20 feet above the runway on an over-enthusiastic flare, leaving the student and aircraft unharmed and (with a little luck) the instructor intact for yet another tour of volunteer duty?

What is more thrilling for a beginner than thermalling steeply in light, narrow lift and outclimbing glass slippers, unless it's floating well above the airstrip on a marginal day, watching the Blanik launch, scratch and land?

If the 2-33 is the maiden aunt of soaring, the 1-26 is a flying Auntie Mame, her twin sister who insisted on living life in the fast lane. Our 1-26, MJM, would never have been chosen for an Oil of Olay ad. Her pockmarked, scratched and dented metal skin was a testament to her misspent life. She wore it like a badge of honour, and never missed a chance for thrills.

To me, MJM was the first – and to date only – glider that I could fly as an extension of my arms and legs, letting the right brain take over the controls.



She was a perfect "point-and-shoot" machine, and her dainty shoves to the seat of the pilot's pants were often more accurate than the variometer. If she had a vice aside from her unique trim system, it was a yen to run into sink downwind, like a drunk sneaking to a bar. Press the stick and nudge the rudder pedal and the 1-26 responded instantly,

abolishing the long lag between action and reaction that was the greatest weakness of her twin sister. Nor did it hurt the ego to know that some of North America's great pilots deliberately pass up the delights (and expense) of state-of-the-art sailplanes to compete in 1-26 competitions, like a gaggle of Grand Prix drivers battling it out in Mini-Coopers.

Progress is often painful, and seeing our three Schweizers leave forever at the end of the 1988 season was particularly so. However, if we are to learn how to fly high performance aircraft safely, we must pay the price. That, at any rate, was the conclusion of our club Elders. Fully supported by a democratic vote, they banished the Schweizers in favour of Blaniks.

Yes, dammit, the L-13 DOES require a much more delicate touch than the 2-33. Yes, it DOES seem to make sense to train students on an aircraft which reacts to control inputs in less than 30 seconds. And yes, if they're going to graduate to glass, students like me should learn to fly a craft which requires more finesse than a stevedore's roundhouse swing. But these self-evident facts do little to blunt the pain of my loss.

As for the 1-26, she was middle-aged, a capital sin in our society. She was as unfashionable as bloomers, and her L/D was an affront to current technology. Clearly, she had to make way for a Madonna of the Air.

Normally more mild-mannered than Clark Kent, last year I had to fight hard to resist rearranging the teeth of an even less experienced student when he referred to one of the 2-33s as "a pile of junk".

I'm sure that our club Elders have made the right decision. Learning to fly accurately in the Blanik will nip careless habits in the bud and underline the necessity of surgical precision in our sport.

But the ghosts of our 2-33s and 1-26 are too sturdy to be exorcized. Scratch a hotshot driver of a state-of-the-art ship and not far below the surface you may find someone who hears the ghostly echo of the wind whistling past the struts of a 2-33. You may also find a pilot who made an unforgivable error early in his flying career, only to be saved from harm by his doting maiden aunt.

Perhaps a requiem is premature. It's entirely possible that the three sisters, each having launched a post-retirement career, will frolic in the skies for a few decades to come. •

A CAT AMONG THE PIGEONS

Peter asked me whether I thought it was feasible to design, build and fly a custom-made, unlimited aerobatic glider for the coming World Championships."

"I spent my Christmas holidays working on a design concept study. We were pinched for time, obviously. We thought at first we'd fly it as an experimental model only and even that we might offer it to the market in kit form for amateur construction. Then, about half way through the project, we realized it would be to our advantage to have it certified."

Celliers explained, "The process is high tech, and we got scared that the average home builder might not have the right equipment and facilities, which would put a big risk on serviceability. We could have cut \$10,000 or \$12,000 off the price if we didn't certify and we could have cut another \$10,000 or \$12,000 if we'd only gone to 6g. But where do you draw the line? With certification, you know what you're getting."

We were using Joint Airworthiness Regulations Part 22 (JAR 22) for sailplane and powered planes, which are the European airworthiness standards," continues Jordaan. "Registration of the project for certification immediately put the obligation on us to demonstrate compliance with JAR 22."

The glider was computer designed to withstand $\pm 10g$ and as part of the certification process they conducted load limit tests in their own laboratory. Maximum pilot weight plus parachute was to be 110 kg (242 lbs).

"The Celstar had to be cleared for flutter," continued Jordaan. "The ground vibration tests were done in four days. CSIR came to our works at the farm to do it."

Selecting the material could have taken months but they had already gone through extensive research and testing for the Eagle project and the Low Pressure Elevated Temperature (LPET) cured glassfibre composite selected proved an obvious choice for the Celstar also.

Celliers had seen such materials used in commercial, military and power aircraft. He had no autoclave so the mold and 120°C method appealed. An electronically controlled, programmable oven was easily built. He wanted to use a pre-impregnated, half cured material which removed the need to mess with liquids and catalyzation limitations. If a pilot accidentally damaged wing or fuselage, existing fibreglass repair techniques were fine. LPET and the vacuum bagging technique were suitable in every respect.

Surprisingly, the Celstar project overtook the Eagle, which is expected to have its first model flying in February 1990. The Celstar first flew in South Africa on the 8th July, three days after Celliers got his glider pilot licence. South African Airways liked the idea of a sailplane in their colours – navy blue and orange – and their emblem, the elegant South African Springbok, adorning the large rudder. They

sponsored the project by bringing the ship air cargo to Germany for the contest and providing tickets for Celliers and his team.

Everything was going so well, but there was disappointment in store. It's tough when governments use talented and innocent sportsmen as pawns in political maneuverings, and even tougher when it hits something as previously unsullied as soaring. To their credit, the pilots at the Third Aerobatic World Championships in Hockenheim held a

**A brand-new glider pilot flying
a brand-new sailplane scores
well in this summer's World
Glider Aerobatic Contest.**

democratic vote and unanimously professed themselves happy for Peter Celliers to fly his new ship under the South African flag.

In his first contest task in his new, barely-flown ship, Celliers took second place.

Unfortunately, it was later realized it was not the place of his fellow contestants to decide whether he flew as a South African team member or as a P.E. (Private Entry). The decision was reversed higher up the ladder, and with incredible timing, Peter was informed of the new decision minutes before he launched for his second contest flight. He took off with tears in his eyes.

Technical Information

Type:	single seat aerobatic glider
Wing span:	11.05 m
Wing aspect ratio:	11.7 / 1
Wing section:	FX 71-L-150
Straight tapered wing	
Length:	6.50 m
Height:	1.70 m
Construction:	GRP composite
Mass –	
Empty equipped:	265 kg (580 lbs)
Maximum flying:	375 kg (825 lbs)
Stall speed:	80 km/h (43 kts)
Vne speed:	324 km/h (825 kts)
Best glide angle:	23 / 1
Max. acceleration:	$\pm 10g$ limit load
Roll rate:	up to 160°/sec
Flight controls:	Conventional including spoilers
Large rudder tail volume	
Retractable single main landing wheel which, when retracted, protrudes suffi- ciently for fuselage to clear ground.	
Structure:	pre-preg glass/epoxy with aramid fibre core material in LPET cur- ing process.

"That's not Peter flying," said his wife as she watched anxiously from the ground. She was right, he wasn't himself and he fell out of the bottom of the aerobatic box and was heavily penalized."

"If I'd had more experience at this," said Peter later, "I would have discontinued the sequence and lost fewer points." A lesser man might have blamed the colossal disappointment delivered immediately before that flight.

Somewhat recovered for his third contest flight, Celliers made a brilliant comeback and took first place. Feeling vindicated, he looked forward to further contest flights during which he could again prove himself and his airplane. Tragically, Poland's Krzysztof Wyskiel, in one of the four wooden Kobuz 3 gliders, was killed when it broke up during his sequence. The Poles consequently withdrew the remaining Kobuz gliders from the contest and were declared the winners. The contest was over.

An international contest was then declared but the weather didn't really cooperate and that too ended early. The Celstar continued to fly, however, and to draw attention. The nice thing about Celliers and Jordaan is their excitement and enthusiasm for the project. They know they have something major here, and so do the other World Championship contestants who were lining up to fly it.

Watching America's 1987 National Aerobatic Champion, Les Horvath, close the canopy and tow up into lowering rain clouds, Celliers said, "There's a cat that has been allowed into the pigeon coop. Sailplane aerobatics has been stagnant for fifteen years. There's been no development of equipment. Pilots thought they were developing but they were not. They were overstressing and over-utilizing old machines. Now, all of a sudden, they realize how far the existing machines used in world contests are behind modern aerobatics. The world championships will be won by the guy with the best aircraft and the best equipment."

Horvath lands and declares the ship performs well – even in the heavy rain he found aloft. He likes it enough to consider a dealership arrangement in the USA. It's comfortable too. The pilot position is more horizontal than other aerobatic ships and the straps hold you in the seat rather than compressing your vertebrae.

Despite the unfortunate political fallout he encountered, Celliers must have taken his ship home happy. He intends making a few minor ergonomic modifications, purely personal taste suggestions that won't effect the aerodynamics. A shorter stick. A modified canopy. Slight changes to the ailerons. He is contemplating stiffening the wing, possibly to 15g. Designer Jordaan says it's unnecessary but Celliers doesn't like deflections, saying deflection is directly related to fatigue. He's sold several already and can expect it to sell well in the future.

The general consensus of opinion is that the little ship will turn aerobatic soaring upside-down. ●

PLACARD SPEEDS

Steve Smith

reprinted from *West Wind*
the Pacific Soaring Council journal

AS A GENERAL RULE, I think soaring pilots are more aware and better educated about technical aspects of flying than other recreational pilots. The sport demands greater technical knowledge, and most soaring pilots, even those without a technical background, seem hungry for more detailed understanding.

Occasionally, I overhear conversations or read articles which reflect a technical misunderstanding or misconception, and I ponder whether it is my place to set them straight. I've been writing an article in my mind for some time, and I guess I'm ready to try to explain a few of the more common misconceptions of placard speeds and limits on my hit list.

There are four key speeds on an aircraft flight envelope that the pilot should know and understand. They are the stall speed, the maneuvering speed, the rough-air redline, and the smooth-air redline.

The pilot knows that the lifting ability of a wing increases in proportion with an increase in angle of attack, and in proportion with the square of an increase in the airspeed. So, twice the speed gives four times the lift, three times the speed gives nine times the lift, etc. At a certain angle of attack, the wing stalls and will no longer increase lift with angle of attack. OK, that's pretty basic ... everyone with me so far?

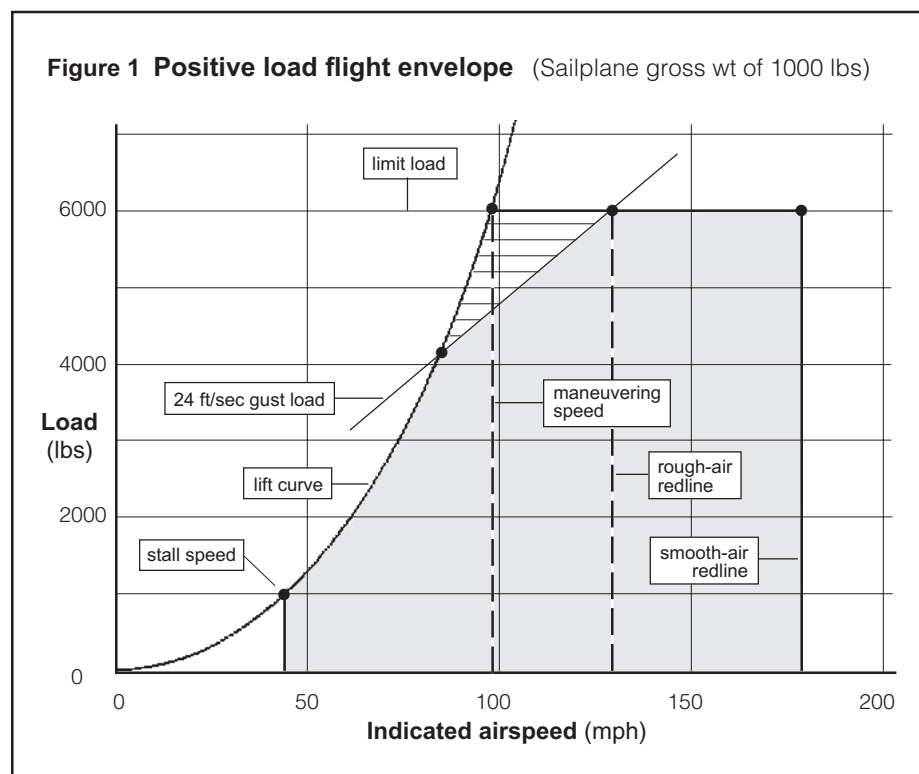
Now, you can imagine that if we fix the wing at the angle for maximum lift and slowly increase the speed (as you might do in a wind tunnel), we will find a speed where the lift is the same as the weight of the airplane. This means that the lift will exactly balance the force of gravity, and the airplane will fly. We call this the stall speed. I don't find too many misunderstandings about this – most everyone knows that this is only the stall speed for steady flight when there is no additional acceleration over and above gravity (we call this 1g flight). Pilots know that the stall speed will increase if you turn or pull up, because more lift is required to balance the additional acceleration, and it cannot be produced by increased angle of attack, so more speed is needed. Some people call this the accelerated stall.

Suppose we want to do maneuvers that produce larger and larger accelerations (more

g's). We will find that more and more lift is required, and more speed. At some point, we will find that the amount of lift force we need is more than the structure of the wings can support and the wings break. The key point here is that the wing breaks at a certain amount of lift force, not at a certain amount of g's. This value of lift is called the ultimate load. To provide a safety margin to protect against flaws in materials, manufacturing defects and design approximations, this ultimate load is reduced by a safety factor (usually 2/3) to the allowable or limit load. The ultimate load and the limit load are translated into g's based on the certified gross weight. One reason that g's instead of actual loads are used to define the flight envelope is that g-loads can be sensed by the pilot and measured by an instrument. The maneuvering speed is the speed at which the wing lift equals the limit load for the angle of maximum lift. If you fly slower than the maneuvering speed, it is impossible to exceed the limit load, because the wing will stall before generating the limit lift load. If you fly faster than the maneuvering speed, it's possible to exceed the limit load without stalling.

Gusts increase the lift load on the wings by causing a sudden increase in the angle of attack. As we fly faster, the angle of attack doesn't increase as much, but the increase in angle of attack causes a greater increase in lift load. It turns out that the additional lift caused by the gust increases in proportion to the indicated airspeed and in proportion to the gust strength. To provide a guideline for how large a gust a sailplane should withstand, some engineer some time ago chose a particular gust strength of 24 feet per second. At a certain speed, the normal 1g lift plus the additional lift from a 24 ft/sec gust will equal the limit load. This is the maximum structural cruising speed, or rough-air red line speed (some people call it the yellow line). Remember that there is nothing magic about the 24 ft/sec gust – a stronger gust will produce the limit lift load at a lower speed. However, the additional lift is based on a sharp gust that is sudden enough that the sailplane can't react to relieve the load. (I can tell you that 24 ft/sec is one hell of a gust!)

The maneuvering speed and the rough-air redline speed are both based on speeds where it is possible to exceed the structural limits of the sailplane by generating too much lift. If you fly in smooth air and don't maneuver abruptly, the only additional limit on airspeed comes from flutter. Flutter is a structural resonance which occurs when the airspeed is so high that changes in lift from small motions (bending and twisting) are bigger than the damping or cushioning effect the airframe can absorb. A similar resonance occurs when you run your finger around the rim of a wine glass just right, and it rings like a tuning fork. Some types of flutter are



from the basic structural design, and some are aggravated by loose control hinges. When a new sailplane is flight tested, the test pilot may fly faster and faster until flutter is encountered, or just demonstrate that no flutter occurs up to a certain airspeed. The smooth-air redline speed is set at 90% of the maximum demonstrated flutter-free speed. The flutter speed is not affected much by g-loads, but it is affected in a complicated way by altitude. Aside from the relationship of lift force and airspeed, the damping ability of the air decreases with altitude because of its lower density. If you fly at 18,000 feet at an indicated airspeed equal to your smooth-air redline, you are flying too fast. But, if you fly at a true airspeed equal to your smooth-air redline, you are reducing your redline too much (although there is nothing wrong with the extra safety). It turns out that about half-way in between is close to the right answer.

We have now completely defined the positive load flight envelope, and a similar process would do the same for negative loadings. A sample flight envelope is shown in figure 1.

Now, let's see how well I did at explaining these things. The following questions highlight some common misunderstandings about placard speeds.

Question 1 What happens to the maneuvering speed of a sailplane if it is flying heavier or lighter than the gross weight?

To answer this, let's go through an example. Suppose the sailplane has a certified gross weight of 1000 lbs. It is designed with a limit load factor of 6g and a safety factor of 1.5. It has a 1g stall speed of 40 mph and a maneuvering speed of 98 mph.

Okay, let's see: the limit load is 6000 lbs, so the wings were designed to withstand 9000 lbs before they break. I'm going to fly this sailplane at gross weight, and fly at 98 mph. If I do an accelerated stall by turning or pulling up, I feel 6g. The wings are producing 6000 lbs of lift.

Now, I'm going to land and take 100 lbs out of the sailplane and go flying again. Now I find that I can pull 6g at 93 mph with the wings on the verge of stall! Does this mean that the maneuver speed is now 93 mph? NO! That 6g maneuver at 900 lbs only required 5400 lbs of lift. If I speed up to 98 mph again and stall, I feel 6.67g, but the wings produced 6000 lbs of lift. The maneuvering speed is now affected by changes in weight.

If I were a very bad person and flew the sailplane at a weight of 1100 lbs, I would find that I could only pull 5.33g at 98 mph with the wings on the verge of stall. But, the wings still produce 6000 lbs of lift, and I still have the same 50% safety margin before the wings break.

If you decided that the maneuvering speed must be 102 mph because you have to go this fast to pull 6g without stalling, you will put 6600 lbs of lift on the wings, exceeding the limit load of the sailplane.

Question 2 What happens to the rough-air redline if you fly heavier or lighter than gross weight?

Suppose the sailplane described in Question 1 has a rough-air redline of 130 mph. If I fly at this speed, a 24 ft/sec gust will produce 5000 lbs of lift in addition to the 1000 lbs of lift to fly level, and I will feel 6g. So, this gust produces the limit load on the sailplane. If I fly at a weight of 1100 lbs at 130 mph, this gust still produces 5000 lbs of extra lift, so the total load is now 6100 lbs. I have exceeded the limit load. Interestingly, I will only feel 5.5g ($6100/1100 = 5.54$). If I slow down to 127 mph before I hit the gust, it now produces 4900 lbs of extra lift plus 1100 equals the limit load of 6000 lbs, and my g-meter shows 5.45g. So you can see that flying too heavy is really dangerous – not only does the rough-air redline go down, but the allowable g-loading goes down, too.

But wait a minute ... my sailplane has a higher rough-air redline when I have water ballast. Doesn't that mean that the higher wing loading reduced the added load from the gust? NO!! The added weight of the water ballast doesn't affect the stresses in the wing because it is spread out along the wing. The extra lift needed is balanced by the extra weight at that point on the wing, so the bending moment doesn't change.

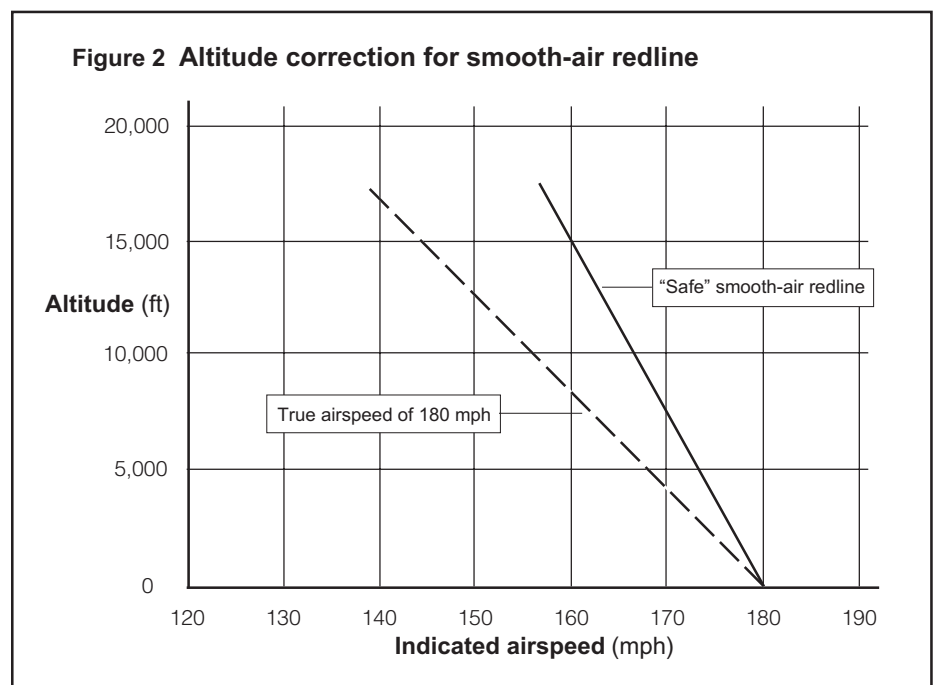
So now suppose that I have 300 lbs of water ballast in the example sailplane, and its gross weight is 1000 lbs. Since 300 lbs of the lift is cancelled by the weight of the water, the wings think the sailplane weighs only 700 lbs. A 24 ft/sec gust produces 7100 lbs of extra lift at 185 mph, but 1800 lbs of this lift is cancelled by the g-loading on the water, leaving 5300 lbs of added lift applied to the fuselage, plus the original 700 lbs, equals the limit load of 6000 lbs. Now look, all this is only approximately right, because the weight of the water isn't distributed along the whole span, and

because I've ignored the moment relief from the empty wings in both examples, and some other subtleties, too. The point is that the weight of the non-lifting parts of the sailplane is the weight that really affects the bending loads. This is a part of the weight and balance which is often neglected. On high performance sailplanes equipped to carry water ballast, it may be possible to exceed the maximum allowable weight of the non-lifting parts, and not exceed the gross weight. This is extremely dangerous.

Question 3 What happens to the rough-air redline at high altitude?

As altitude goes up, the air density goes down, so that the lift produced by the wings goes down. To compensate for this, the aircraft naturally flies faster. All the aerodynamic forces on the airplane will be the same at any altitude if the indicated airspeed is the same. The added lift produced by a gust of the same strength will actually be lower because the sudden change in angle of attack is smaller since the true airspeed is higher. When I fly 130 mph (IAS) at 18,000 feet, my true airspeed is about 180 mph, but a 24 ft/sec gust only produces 3600 lbs of added lift, so I could fly faster before that gust would exceed the limit load. So, strictly speaking, the rough-air redline indicated airspeed should go up at higher altitude. However, at higher altitude, higher gust strengths are likely to be encountered, so it is convenient to think of the gust speed as an indicated speed, too, so the rough-air redline speed does not change with altitude. In any case, it makes no sense at all to say that I am flying 50 mph above redline if my true airspeed is 180 mph at 18,000 feet.

We have already talked about high altitude flutter speed. If your glider's flight manual has no instructions for smooth-air redline at high altitude, then I recommend making a chart like the one shown in figure 2.



REPORT ON INTERNATIONAL GLIDING COMMITTEE

Colin C. Bantin

Chairman Sporting Committee

A meeting of the IGC was held in Frankfurt on 6-7 October 1989. The meeting was not fully attended since the delegates from Australia, New Zealand and South Africa were not present. A lot was accomplished, however, and progress was made on most items.

FAI General Conference IGC President Peter Ryder summarized the proceedings of the FAI general conference which he attended. In summary:

- The changes to the by-laws of the Statutes and the General Section of the Sporting Code were approved.
- France indicated its willingness to host the Air Games in 1991 with support from the French government. They are basing their budget for the gliding activity on participation from 27 countries with a total of 300 sailplanes at \$US220 per entry. The French gliding authority, FFVV, however, is still not in favour (more later).
- Many ideas were discussed for getting sponsors for various air sports.

Sporting Code and Rules The latest amendments to the Sporting Code (the one with corrections to all the typos etc. that a lot of you have seen) was sent to the FAI by the rules chairman Tor Johannessen. It has not been seen since! Tor is following up.

Revisions are needed to Section 3 (Gliders) of the Sporting Code. Inputs from the delegates will be considered at the March 1990 meeting. Please forward any comments that you may have to me for coordination as much in advance of this date as possible.

It is desirable to have a common set of rules for soaring championships that can apply to all events with specific exceptions as may be noted. This is in contrast to the recent trend where the world championships rules are "re-done" by the hosting country, which then need approval of the IGC. The difficulty here is that the rules are in a state of flux because of the introduction of new tasks and scoring schemes (more later). Suggested revisions to Annexes A-D for the World Championships rules in Section 3 are required by 15 November, 1989. This is not much time but the organizers of "Ameriglide" (the pre-Worlds competition in Minden in 1990) and the 1991 Worlds need the input as soon as possible.

A committee is investigating the incorporation of electronic barographs into the rules in a manner similar to the inclusion of time-back cameras. The meeting was given an opportunity to see two of these devices and to listen to presentations from company representatives. These are the EW Avionics barograph

and the Alto Print barograph. I have information on both if anyone is interested.

A long discussion was held on the definition of motorglider, and whether this definition should include gliders with sustainer engines in addition to those which are self-launching. The meeting was attended by Hans-Werner Grosse as an observer, who gave a presentation on why sustainer engines should be included. There was no resolution, in part because there is no chairman at present for the Motorglider Sub-committee who could take the lead in proposing a position to adopt.

Events A summary of the successful 21st World Soaring Championships at Wiener Neustadt was given by Max Faber. Summaries were also given of the 6th European Feminine Championships and the 1st European Youth Championships.

Bulletin #1 from the 22nd World Soaring Championships was issued by Bernald Smith from the USA. I have sent a copy to Al Schreiter for distribution to the next Canadian team.... The [competition] rules were not approved by the meeting as was hoped by Bernald. The main problem is that the scoring system does not appear to be as advertised, ie. not simple, fair and easy to understand! In fact considerable concern was expressed over the introduction of POST tasks and the scoring scheme which has not been tried in any contest. I took this opportunity to summarize for the meeting the experience we have had in Canada with new tasks and a new, very simple, scoring scheme. I took care to note that the scoring scheme was preliminary and still had problems but it was well received. I don't believe that the Americans will be impressed but we do have an opportunity to comment on their scheme. The biggest hurdle is coping with the concept that there is no normalization to 1000 points and there is no associated day factor. The normalization factor is where the proposed USA scheme runs into trouble. The rules will be resubmitted to the IGC Bureau for approval in March 1990 and will apply to "Ameriglide" and the World Championships.

A brief report was given by the organizers of the 23rd World Championships in Sweden and even briefer reports on upcoming European championships.

Air Games For the discussion of the FAI Air Games the meeting was honoured by the presence of both Mr. von Kann, the President of FAI and Dr. Kepak, the Director General of FAI. Their presence was, I presume, the first confrontation between the FAI and the FFVV through its delegate to the IGC, François Ragot. Mr. Ragot restated the position of the FFVV: it is the body which approves all gliding activity in France, a mandate given to it by the French government, it has nothing against the Air Games

but they should not interfere with existing or scheduled soaring events (they in fact do interfere), it will not organize the Games and it would take a high level political decision to change this. Apparently, for the FFVV to organize the gliding part of the Air Games, some other event would have to be dropped and extra money would have to be allocated. The issue, as I see it, is that the FFVV is putting a price on the fact that they were not consulted by the FAI on the Air Games, they were not given sufficient notice, and it would appear that a soaring activity was being organized outside their auspices. Mr. von Kann made a brief statement that was intended to leave the door open for negotiation. These were just the first salvos in what may be a long battle.

World Class Glider The last revision to the technical specifications for the World Class Glider and the Rules for Entry into the design competition were submitted to the meeting. (*Copies are available on request from Colin if you have not seen one. ed.*) I have received some inquiries in the past but I have not had a good copy of the specifications or rules until now.

The specifications and rules are approved now and ready for distribution. The scheduling is as follows: Feb '90 last date for submission of intention to enter, Mar '90 IGC selects panel of reviewers, Aug '90 last date for entry, Mar '91 date and site set for prototype testing, Aug '92 final testing of prototypes, Oct '92 selection of winner, Oct '93 type approval for winning design. The issue of money management does not appear to be a problem since no sponsorship has been found yet. The legal aspects are of concern to the IGC and, after expressing our views and some further urging on my part, I received the personal assurance from Dr. Kepak that the FAI, being the legally responsible body, will obtain the appropriate legal opinion.

The committee will proceed with the announcement of the competition. A motion from Bernald Smith was passed to form a management group to oversee the competition. The committee has already approached such notable people as Dr. Morelli (Italy), Judge Lattimore (USA), Mr. Johannessen (Norway) and Cedric Vernon (UK) who could be part of this group.

Other Items Tom Zeally (UK) gave his usual in-depth report on airspace matters. Except for the ongoing problem of encroachment by controlled airspace, there is nothing new in this area.

The proposed 40,000 km round-the-world cumulative distance badge concept was finally rejected in that it did not reward any essentially new soaring skill or achievement.

The concept of an international ranking scheme, similar to tennis for example, was introduced. Any thoughts on this that I can carry back next March?

The next meeting of the IGC will be held in Paris on 23-24 March 1990. •

HOPE FOR WESTERN INSTRUCTORS

Marek Wakulczyk, Cold Lake
Tom Schollie, Edmonton

Hope, BC is a bustling town of 4000 people, 96 miles east of Vancouver. Beautifully situated amongst the mountains, its most recent "claims to fame" include the filming of *Rambo* and hosting the SAC Western Canada Instructor Course as sponsored by the Vancouver Soaring Association.

The course itself was ably and patiently coached by Mike Apps of the Edmonton Soaring Club (candidates came from Alberni, Vancouver, Dawson Creek, Edmonton, Grande Prairie, Cold Lake, Regina, and York). As we formed a gaggle in the VSA clubhouse at 9:00 am on August 6, we were given the chance to introduce ourselves and briefly state our experience levels. We would subsequently choose the same seating arrangement at each session to assist Mike in linking names to faces.

Our introductions complete, Dave Baker, VSA President, greeted us and then used a scale model to identify "the Bowl", Dog Mountain, Hope Mountain, Jake's Peak, and "the Knoll". He also clearly indicated where we would usually find thermals, wave, ridge lift, sink-holes, and high flying power lines. Dave also informed us that his club had a special deal for the course members: \$25 for up to 30 minutes of flight from a 2000 foot tow, on either Blanik or the Grob 103.

The formalities now complete, Mike called upon volunteers to prepare short talks on such topics as weight and balance, aerodynamics, towplane upsets, instruments, and sub-gravity sensations. We were then informed that the typical flying schedule for the course was between 8:00 am and 1:00 pm, followed at 7:00 pm by ground school until 11:00 pm.

As those who had never flown at Hope were given their site checks, the most common comments included "where's the horizon?", and "I can't believe you brought me that close to the mountain!" Nevertheless, as people became accustomed to the presence of the mountains all agreed that there was some quality flying to be done. And to start the trend of quality flying, a surprise appearance by Manfred Radius led to everyone having an Unusual Attitudes flight with either him or Ray Maxwell. These flights gave everyone the chance to experience a loop, wing overs, and sub-gravity sensation.

As the course progressed, the weather was nearly perfect every day. By noon it was very warm, and as some people studied, others relaxed, and a group of fanatics regularly continued to fly.

The ground school taught by Mike included judgement training, learning patter, meteor-

ology, and how to thoroughly plan a flight lesson. Those evenings also gave all a chance to discuss an upcoming flight with their partner/student/instructor, thereby ensuring that each team would get the most training value out of each flight. The ground school also offered a great forum for listening to the previous day's flights tape recording and analyzing instruction techniques. Everyone agreed that listening to one's own teaching technique helped to use the proper words and phrases. At one of the ground school meetings the following story was told:

"After listening to a lecture on aircraft stability the past evening, "X" and I went up to test the theory, but that's not really the truth.

We were coming back from a nice flight of some rather careful attempts of ridge soaring where we got enough height to repeat some of our air exercises: 360 degree turns, slow flight, stalls, and CALL of course (not necessarily in that order). We started our downwind leg in good position and I as the "instructor" asked the "student" to do the downwind checks. While I was listening to him calling out the SWAFTS (with his head in the cockpit), I was making the downwind call on the radio.

I noticed that the sailplane flew rather erratically, the nose from the sailplane going up and down averaging between 55 and 65 knots. In general we were still flying in the direction of the downwind leg but with perhaps 10 degree variation in either direction, and also rather sloppy coordination. With me sitting in the backseat wondering, "What the heck he is trying to pull on me now", I resisted the temptation to grab the stick.

As we had by now covered 2/3 of the downwind leg, I reminded the student that he should not get so carried away with his SWAFTS as to neglect the attitude and directional control of the aircraft. The reaction was quite startling: a very indignant X raised hands and said, "I am not flying it." "I am not either!" I replied. "I have control", was his

next comment since the "student" was supposed to be learning the circuit and the instructor planning it. We arrived at final rather high (playing it safe now), which gave a chance to practise a steep approach with full flaps.

As far as we can reconstruct, there was a missing link in communication at the beginning of the downwind leg, and as a result the sailplane flew the better part of the downwind leg with no one in control but the aircraft engineers in Czechoslovakia.

The lesson to be learnt: do not assume — make sure."

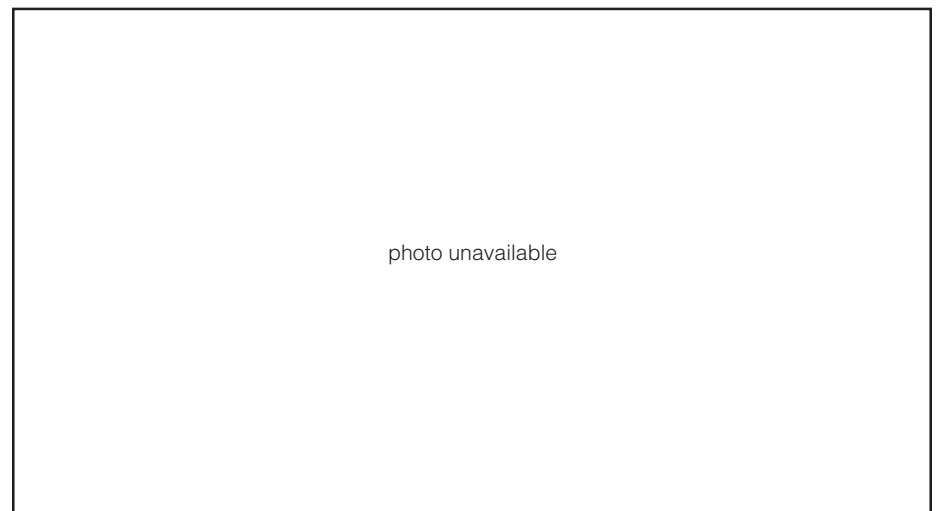
After that story we were all believers in "You have control", "I have control".

There were several things at Hope on which we could count: a gentle morning east breeze, a brisk afternoon west wind and windshear, and the L-19 flown by Peter Charak from 8:00 am until the evening. Taking only a short break for lunch, the energetic Peter seemed to enjoy towing as much as we did soaring.

The Friday evening saw a wind-up barbeque with good attendance, and presentations to Peter Charak and Mike Apps. The party was an ideal way to prepare for the next day's very thorough exam.

Looking back on the entire course, there was a feeling that the course injected more discipline into everyone's flying. It also taught or refreshed our knowledge of the theory behind the flying. There was an excellent spirit of operation and friendship, and good discussions without argument. Having been given the basics of instructing, we now move to real instructing, ready to learn as we teach others to fly.

Members of the VSA are to be congratulated for being excellent hosts during the course. They gave up their quarters for our lectures, made their equipment available, and were very helpful in every way. •



Course attendees: in Blanik, Gary Chapple (MZCSA); back row l to r, Keith Crawford (York), Mike Apps (ESC), Bob Moragne (VSA), Peter Charak (towpilot), Bill Walden (VSA), Dick Dejong (ESC), Roman Ledicek (RGSC) and brother, Walter Mueller (GPSS); on ground l to r, Perry Stadler (CLSC), Jim Watson (VSA), Doug Moore (AVSA), Marek Wakulczyk (CLSC), Denis Hamel (CLSC), Tom Schollie (ESC).

Club News

BC SOARING SOCIETY NEWS

We have received \$3335 in government funding for 89/90... in spite of the fact that we are still a bit short of the minimum membership required. Where possible we direct the money to the clubs rather than individuals and expect the clubs to reimburse the members as appropriate.

We hope to expand the "Vancouver Soaring Scene" (the VSA newsletter) to become the "BC Soaring Scene", but this requires cooperation for mailing labels as well as, most importantly, input of club news and views from around BC.

The Windermere Valley Soaring Society have been unable to establish a reliable towing service in their local area, and the active members are involved with Cu Nim in Calgary, who own three Blaniks. As a result they offered VSA first refusal on their Blanik and it has been repurchased by VSA.

We are pleased to welcome a new member club: 353 (Mile Zero) Squadron from Dawson Creek who have also joined SAC and whose instructor was able to attend the Western Instructor School at Hope. The Port Alberni club were also represented at the course which was great to see.

Bulkley Valley (in Smithers) were reviving their activities.

The Vancouver club has increased its student population almost to capacity. The additional Blanik will be a welcome addition as some of them approach solo and licence stage.

Christine Timm, BCSS secretary

2 DIAMONDS IN COWLEY WAVE

The Wave Camp worked this year again with some plusses and minuses. The Alberta Soaring Council extended the camp through the week and two weekends beginning on Thanksgiving in order to provide more opportunity to catch the wave (Murphy had usually provided one on the "next" weekend). Having a longer camp also encouraged more pilots to attend from further away — Regina and Winnipeg was well represented, and three members of Bluenose Soaring in the Maritimes, Ian McKenzie, Dick Vine and Tony Toole, made a long trip to fly here. Even Eric Durance of Windsor dropped in one day.

The Thanksgiving weekend was the best, with strong surface winds accompanying the wave however. The sky was solid with lenticulars, and two Gold climbs and three Diamond climbs, by Chris Apps, Stewart Midwinter, and (I believe) a VSA pilot, were made on Sunday. Young Chris, on his first solo wave flight, won't be able to claim his Diamond though because the barograph stopped!

Very strong winds on Monday afternoon caused the operation to be shut down. Dick Mamini, slowly taxiing a Cu Nim Scout to the tie-downs, was blown onto his back. Luckily he wasn't injured, but the towplane was substantially damaged.

Midweek wave conditions weren't as good, but Friday produced one to 24,000 feet. Gary Bozek in the Regina Grob didn't quite connect on release and landed out. So did Neville Robinson of Winnipeg in his BG-12B, but he did it on purpose by heading downwind to Claresholm airport just for the hell of it. That was a surprise to Bob Sturgess and Dave Woodcock of Medicine Hat who were there at the time to pick up their Blanik which had had some maintenance work done on it.

One never knows what the weather will be like at Cowley in October — sometimes it is T-shirt and shorts — this time it ended with long johns and all the socks one owned, and frozen slush and snow had to melt off the club ships before they could be derigged on the last day.

Tony Burton, Cu Nim

BULKLEY VALLEY GREETINGS

We write to let you know that our club is once again very active and is enjoying every soaring minute of it! We have logged close to 300 flights this season and are hoping for a long autumn full of activity. Three of our students soloed [at the end of August] and a couple more are close behind in their progress. The senior members have been excellent with both their time and their patience.

We have been working at promoting the club to the public. Weekend introductory "sight-seeing" flights are helping us get back on our feet financially. The majestic Hudson's Bay Glacier and Twin Falls are a spectacular side show along the gliding tour.

Susan Jones

1990 NATIONALS date change

The date of next year's Nationals to be held at Starbuck, Manitoba, has been moved up three weeks to June 12-21 with practice days June 10-11. Two main reasons are given: the soaring conditions are expected to be optimum at that time, and the earlier dates will allow Canadian pilots to also attend certain other major soaring events in the USA if they wish.

from **Dick Metcalfe**
Chairman, Organizing Committee

LANDING OUT WITH A DIFFERENCE !

Al Schreiter, SOSA

After thermalling in zero sink for about 20 minutes at 900 feet, I realized that I would not get away from this undesirable position, especially as the afternoon was progressing past the best lift time. A large plowed field was nearby, while "home", the Rockton airfield, was 10 km away. Landing out seemed the prudent thing to do.

A concession road formed the north end of the selected field, and a farm house was no more than 1-1/2 km along this road. Great place as land-out fields go. I set up my circuit for a routine landing. On final I noticed a white car coming along the road, but lost track of it as I passed over the road. The landing was uneventful and I got out of the cockpit.

To my surprise I noticed the white car on its side in the ditch! I ran up to the car just in time to help a young man out of the passenger window. The driver, a young woman, was still in the car and complaining of leg and back pains. Because gasoline had spilled out of the tank it did not seem a good idea to leave her in the car, in spite of her possible injuries. With some effort we managed to get her out and away.

I set off for the farmhouse and a telephone. The farmer was quite surprised to find he had a car accident on his road and an airplane in his field. I phoned for an ambulance and the police, and then to Rockton for a retrieve, and went back to the accident scene. I had some misgivings about the cause of the accident because I assumed the driver had run off the road watching me land. While waiting for the ambulance, I casually inquired as to the reason for running off the road. Much to my relief the young lad informed me that they had had an argument which got so heated that the girl almost hit the ditch on one side of the road, then overcorrected and skidded into the ditch on the other. They had not even noticed me landing and still had not noticed the sailplane sitting in the field nearby!

As a matter of fact, the argument was being revived, with added complication of the husband blaming his wife for the accident, and the wife accusing the husband of being more concerned for the damage to the car than her injury. I decided to keep my mouth shut and stay out of it. Soon the ambulance, a wrecker, and the police arrived and did their thing. And in the midst of the confusion, flashing red lights, and people running around, my crew appeared, no doubt wondering what had happened. Just as they arrived the ambulance, wrecker, and police departed with sirens screaming.

One policeman remained behind, and only then did he notice the sailplane in the field, and the strange trailer contraption on the road. "God", he said, "I never noticed that airplane crash! Did anyone get hurt?"

We derigged and departed for Rockton. •

FOR THE INSTRUCTOR

Paul Moggach

SAC Flight Training and Safety Committee

THE WINTER IS USUALLY A PERIOD for assessing the previous soaring season and planning for the coming one. With this in mind I'd like in particular this time to talk to the CFIs and the instructors out there. Many clubs hold an instructors meeting before the flying season starts. I have attended a few of these in the past and have witnessed some that were a success, while most were disappointing. Here are a few suggestions to make these sessions more productive.

First of all, some advice on holding meetings in general:

Start by giving some thought to the goals of this year's meeting and prepare an agenda for the discussions. Next, set aside enough time to cover all of the topics that you have come up with. If you feel that this is the year to review your entire operation, then don't try to do it in two hours. Hold two sessions, or a whole day-long meeting. Some time before the meeting, send out a copy of the proposed agenda to everyone who will attend. Some changes to this agenda may be suggested at the meeting itself. This is fine, however, fit them into your agenda before you start. Finally, get someone to chair the meeting and keep everybody on track.

What should you discuss? Instructors get rusty over the winter months and most of these meetings should include a quick review of the current operational practices at your club. Along the same lines, all of the instructors should be teaching the same basic circuit and everyone should know what this is. This is probably the single area that students complain about most, the lack of consistency in the teaching of circuit planning and judgement. How about leaving some time to talk about new instructional techniques? Every year I learn something new. These meetings are a good time to pass on this information to everybody else. However, limit the topics you choose, to a few that you think are most appropriate to your operation. In the same vein, perhaps you might try selecting one training exercise (ie. incipient spins) and then hold an open discussion on how to teach it. The SAC materials, the SAC Instructor's Manual, Air Instruction Notes, and audio cassettes, are a good foundation for any such session, however there are more tips and tricks of the trade that may come to light in such an open forum. Again, however, resist trying to cover too much at any one meeting.

One topic that you might like to tackle this year is the effect of the new Category 4 Medical and Student Pilot Permit (SPP) procedures as covered in the Aeronautical Information Circulars 0/8/89 and 0/10/89 on your operations. On the plus side, most glider pilots will now only have to fill out a declaration (forms 26-0297 English; 26-0301 French) in lieu of the previous medical examination. Further, it appears that Authorized Persons (CFI) may issue the SPP on site if this form is completed and kept on the student's file.

Both of these moves will help make things more convenient. On the minus side, instructors are still required to have a Category 3 Medical. This I believe will present some barriers in the future in attracting new instructors and holding on to the present group. There is no logic attached to this ruling as presumably anyone who takes a passenger has the same basic responsibility regardless of whether or not they are giving instruction. These Category 3 and 4 rules are basically the same ones that apply to the Ultralight pilots and it seems that DoT is trying to kill two birds with one stone. The basic question in the end is whether or not your club policy should require all passenger carrying and/or dual flights to be done by holders of Category 3 Medical regardless of the DoT regulations.

Finally, save some time to discuss any problems that you have encountered in the past season.

If you have generally had smooth sailing, then if time and interest permit, you might try using the risk management techniques that were discussed at last year's AGM. While this may sound a little "Hi Tech", these are simple techniques that anyone can learn that help you to analyze and perhaps anticipate problems in your flying operation. Copies of this talk can be obtained either from the National Office, or members of the Flight Training and Safety Committee, and was in 3/89 *free flight*.

Well, I hope that I have given you some useful ideas for this year's meeting. If you want any help in any of these areas, why not contact a member of this committee. I for one would be glad to attend any such meeting that fits my schedule and I am sure that the others feel the same. •

The National Office Report

I suppose everyone is now busy putting away their gliders for the long cold winter. Ella and I are busy cleaning up the insurance and membership files and will soon be getting ready for the new season.

"Soaring Stuff" orders are keeping us busy. We have had a very good response for both the German and US calendars. Send your order form as soon as possible to avoid disappointment. The cost is \$23 for the German calendar and \$12 for the US calendar.

If you're looking for an ideal Christmas gift for that special soaring pilot, why not order a sweatshirt? You may order either hooded or crewneck style. We also have T-shirts available in navy blue or, our

newest style - the "Bee" T-shirt. Your support is appreciated.

The 1989 tax receipts and the 1990 membership cards will be mailed out shortly to your home address. If you will not be rejoining in 1990 simply destroy the card.

The Winnipeg Gliding Club has been working hard to make the 1990 Annual General Meeting a success! The AGM will be held at the International Inn in Winnipeg, Manitoba. The hotel is located just next door to the airport. Rooms will be \$56 single / \$60 double. Please make your room reservations early. You may reach the hotel by calling 1-800-528-1234 (toll free). When calling, please indicate that you are with SAC.

Thanks to Alex Krieger, Quebec Zone Director, Accident/Incident forms

will be available in French for the 1990 season.

Would you like to assist the National Office in finding our oldest and youngest instructor in Canada? Please have someone in your club write, call, or fax the National Office with this information. The result will be printed in our next report.

Have you recently moved or are planning on moving in the near future? If so, please send your new address to us. We have been getting 40-50 copies of *free flight* returned each time an issue is sent out. That amounts to quite a bit of money wasted due to incorrect addresses.

The Office will be closed between Christmas and New Year.

Nancy and Ella

There are no doubt other conclusions to be drawn for this book but I'll limit myself to these for now. So what does this mean to SAC at this point? First and foremost we need more members. Not to get the government support that Mr. Midwinter suggests, although I know he has less cynical motives as well, but because more members mean that we can exist closer to the fee level that we see with SAC and provide more value for our dollar. I don't think however that Mr. Midwinter would want to join our organization at the present fee levels (let alone with a \$10 increase). The federal government is probably wise in requiring membership at the 3000 mark. A \$50 membership fee would be possible at those levels and would be easier to live with for all of us. I'll discuss the membership problem later.

Failing attracting or amalgamating with other groups to gain more members I feel that we should start acting like the small organization that we are. The alternatives being explored by Mr. Werneburg I feel will not solve the basic problem of the membership. To this end, I think that we should cut back on all of the services that are not visible to our general membership; however, the insurance program, instructional materials, the National Office, and *free flight* are used by everyone. If at all possible we should try to maintain these services.

Meetings and travel expenses are probably the area that should be looked at closely. As a small organization, I suggest that we should only have one set of meetings per year organized around the AGM. The people who run things should arrive a few days earlier and hash out whatever policies are necessary to run the organization for presentation to the membership. After all, how many things should an outfit of our size really meet and hold discussions about? If we have more things to discuss then let's start learning about the art of correspondence or use *free flight* as the forum. Recently the Flight Training and Safety Committee had its fall meeting cancelled. Rumour has it that money allocated for this event will now be directed to getting the members of this committee out to the clubs themselves. While the committee work is important, it could as well be centred on the AGM. In summary, the meetings only directly benefit a few. Let's cut down on their scope.

If all of this seems like a call to lower our goals, then you would be right. Unless we take this course then we will continually be facing fee increases. While for many this may seem like a surcharge to the basic insurance that they pay on their sailplane, for many this seems like an awful lot to pay for a subscription to *free flight*.

If you are of the opinion that we should not lower our goals as an organization, then we must in my opinion increase our membership. Unfortunately I don't think that we can look to the USA for the answer to this problem. I think that the commercial operators in the USA in the '60s and '70s were the prime reason

that the sport flourished and provided the SSA with the membership base that has made it successful. In North America it is obvious that soaring is a relatively obscure sport and the continuous presence of the commercial operations more than any other single factor allowed for the growth in the sport. The commercial operators were able to provide a service at a reasonable cost and were generally more visible than the gliding clubs to the public. The slower growth of SSA in recent times is probably a result of the decline in both the number and the cost effectiveness of the commercial operators.

So what do we do about our problems? A viable short term move would be to amalgamate with some other group. This would help with the administrative side of our problems and probably lead to a decrease in our fees. I personally would suggest that we should align ourselves with the SSA or our own Canadian Owners and Pilots Association, although efforts along these lines seem to have met with some resistance in the past.

If amalgamation is not our chosen course, then we must increase our membership on our own. There are a number of resources that we have ignored in the past. The principal one is the Air Cadets. While the government has not been a reliable source of support they have maintained a fleet of eighty plus gliders for the past ten years and trained thousands (yes thousands) of glider pilots. Admittedly most Air Cadets do not take up the sport, however we have been missing a great opportunity in getting those that are interested into our system of clubs sooner. I suspect that most of the Air Cadets who are interested in pursuing the sport of soaring do not join a soaring club for five to ten years after they have been licenced as glider pilots as they are busy with school and other pursuits. I know that we could keep them in the sport, or at least get them to return to it sooner if we as clubs and an association had stronger ties with the Air Cadet League. As a minimum we should start "advertising" to this group by sending at least one copy of *free flight* to every squadron. Unfortunately, I think that we have lost the initiative to develop stronger ties with this organization, and I think that even if the will is there, it will take considerable effort to forge better bonds in this area.

At the club level itself, aside from attracting new members, we must do a better job in keeping them. The sport is about flying, so that's what we must do. Get them solo, licenced, and in an aircraft. To this end we must provide more, competent instruction. I would gladly divert travel and expense money to any senior instructor who would like to attend a SAC instructors course for the purpose of learning how to give such courses. Ultimately I would like to see every club in Canada with at least one such person qualified to train other instructors.

Well, in the end this is just my opinion. We can either continue to muddle along, raising fees, lowering services, seeking handouts, et cetera, and SAC will surely die a slow death. I don't know when the point will be reached, but sooner or later the individual clubs will do without SAC if it continues on its present

course. There will be no swell of members from commercial operators to save us as it did for SSA. On the other hand, we can change our direction. Which will it be? I'd like to hear your opinion in this our national forum.

Paul Moggach
York Soaring Association

**FLYING YOUR HOMEBUILT
IN THE USA NEEDS FAA OK**

It would be appreciated if you would enclose the below information in *free flight* regarding the requirement for a Special Flight Authorization for owners of amateur-built gliders intending to fly in the USA.

Canadians wishing to fly their amateur-built aircraft in the USA should contact:

Federal Aviation Administration
Herschel C. Jones, ANE 180
Manager of Manufacturing & Inspection
12 New England Executive Park
Burlington, Mass USA 01803
phone (617) 273-7108

United States citizens should contact:

Transport Canada, AARDFG
Centennial Towers
200 Kent Street, Ottawa, ON
K1A 0N8
phone (613) 952-4387/4388
fax (613) 996-9178, telex 053-3130

The information requested is as follows (some relate only to powered aircraft, of course):

- 1 Aircraft make.
- 2 Aircraft model.
- 3 Aircraft serial number.
- 4 Nationality and registration mark.
- 5 Name and address of registered owner.
- 6 Purpose of flight (briefly).
- 7 Place departing from...
- 8 Place arriving at...
- 9 Routing (include fuel stops and border crossing if applicable).
- 10 If aircraft IFR equipped.
- 11 How long authorization should remain in effect (normally 90 days).
- 12 Who should authorization be made out to
- 13 Who should authorization be sent to.
- 14 Name and telephone of contact person.

It is best that this information be sent several weeks prior to the date of intended departure to give the issuing office time to mail the Special Flight Authorization to you. This must be carried in the aircraft.

Glenn Lockhard
General Aviation Inspection
Airworthiness Branch
Department of Transport

Glenn remarked during a phone call I gave him to get some background information that he is trying to have the Authorization extended to more than 90 days. This reciprocal agreement between FAA and DoT has actually been in effect for some time but few persons have been aware of it. A recent Canadian amateur-built glider accident at Sugarbush brought this to light during the subsequent FAA investigation. Tony

GRUNAU BABY UPDATE

We enjoyed your interesting article about the War Prize Gliders (in 4/89) and thought you might like a postscript.

Restoration has begun on CF-ZBH. The empennage has been stripped and the entire airframe has been inspected by an AME. Original drawings for three-quarters of the aircraft have been found and letters have been sent in an effort to locate the missing drawings, suitable building materials, original instruments, etc.

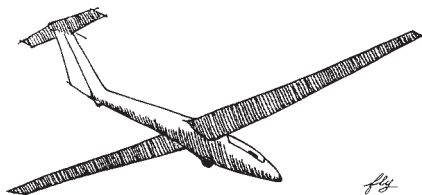
The inspection revealed that CF-ZBH has retained its original wings and empennage. The airframe is basically sound and in remarkable shape for its age. It's interesting to see the different glues and materials that were used for repairs throughout the aircraft's life. The original glue (Resorsinol) is still airworthy.

Five layers of different coloured dope were removed (one layer at a time) from parts of the elevator. We felt like archaeologists sifting through layers of time. The last layer was a dark green colour. After checking with different sources and matching some ancient paint chips it was determined that the colour was 1940s-era camouflage green. We were not aware that Germany camouflaged sailplanes.

Does anyone have any information regarding this? It is our intent to keep a small section of this original colour intact on the finished aircraft.

Loraine and Dave Fowlow

Cu Nim



Coming Events

Jan 17, and following 10 weeks, **Toronto Glider Pilot Ground School**, Bathurst Heights Secondary School. For registration info, call (416) 789-0551. Course instructor, Paul Moggach (416) 656-4282.

Feb 15-17, **SSA National Convention**, Indianapolis, Indiana. For information, contact Donald Taylor, Capital Center Ste. 1950, 201 N. Illinois Street. Indianapolis, IN 46204. See ad on page 26.

Mar 2-4, **SAC AGM**, Winnipeg. International Inn (it is walking distance from the airport), 1-800-528-1234, \$56 single, \$60 double. Final details in 1/90. Contact: Paul Moffat (204) 633-5221.

Jun 10-21, **1990 Canadian Nationals**, Starbuck, MB. Hosted by Winnipeg Gliding Club, contact Dick Metcalfe for advance information (204) 269-2916.

SAC VIDEO LIBRARY

Gordon Waugh
5546 Sentinel Square
Halifax, Nova Scotia B3K 4A9
phone (902) 455-4045

Name and description	running time
<i>The Quiet Challenge</i>	28 min
<i>Running on Empty</i>	22 min

Professional productions featuring the world's best soaring pilots flying the world's best sailplanes in American contests.

<i>Riding the Mountain Wave</i>	27 min
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Produced by CBC Edmonton and features a Cowley Wave Camp. Excellent quality.

(Note: items 1, 2 and 3 are fully protected by copyright)

<i>1982 Nationals at SOSA</i>	29 min
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Some good airborne shots. Good quality.

<i>The "World's", Benalla 1987</i>	15 min
<i>Manfred Radius (aerobatics)</i>	7 min
<i>Janet Foster flies in a 2-33</i>	7 min
	29 min

The "World's" is a very interesting video. Fairly good quality. The Manfred Radius item is a "promo", played over local TV stations just before one of his airshows. Fair quality. The Janet Foster bit is a nice little clip from one of her famous travelogs. Good quality.

<i>Bluenose Soaring Club, 1986</i>	
<i>Bluenose Soaring Club, 1987</i>	
<i>Club de Vol à Voile de Québec, 1986</i>	

The Bluenose tapes document the year's activities with ground and airborne shots around Stanley, NS. The Quebec tape covers a day's visit around St. Raymond, PQ. Tapes are of good amateur quality.

<i>Spring soaring on the prairies</i>	4 min
<i>A "Fam" flight at Winnipeg club</i>	23 min
	27 min

A charming little "lifter-upper" by a Winnipeg TV station followed by a typical fam flight at Starbuck gliderport. Good amateur quality.

<i>TV interview, Tony Burton and Ursula Wiese</i>	32 min
<i>Building the AV-36</i>	11 min
<i>Soaring in Alberta in the '50s</i>	26 min
	69 min

Good interview, answering many layman's questions about soaring in general and is useful in introducing the public to soaring. The next two items are classics. They tell about the construction of the Fauvel AV-36 "flying wing" gliders by the "Tenardee" club members in Calgary in the early '50s, and the flying activities in Southern Alberta that

led to the discovery of the wave at Cowley. Ursula edited this material from old home-movie films by A.W. (Bill) Riddell, one of the AV-36 builders, who does an informative "voice-over". Considering the origin of the basic material, the quality is fairly good.

<i>Chasing Phantoms</i>	5 min
<i>(glider slides and music)</i>	
<i>Aerobatics in British Columbia</i>	3 min
	8 min

These are short but sweet. The first one is composed of 35 mm slides cleverly put together with a musical background. Different, but good. The second is aerobatics in a Grob 103 somewhere over the Fraser River. Both by the VSA and of good quality.

<i>If only I had wings</i>	25 min
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Man's old-age dream to fly – expressed in ballooning, gliding, and parachuting.

<i>Soaring</i>	27 min
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A history of soaring going back to the Wright brothers. Some excellent footage taken at the Region 5 contest in 1988.

<i>Soaring, harmony with the wind</i>	14 min
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The latest soaring tape by SSA. Excellent ridge soaring shots from Stowe, Vermont.

<i>Silent Sky</i>	17 min
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Oscar Boesch's soaring movie made in California. Aesthetically very pleasing.

<i>Soaring in Hawaii</i>	19 min
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My visit to "Soar Hawaii" of Oahu in Mar '89.

<i>Regina Gliding and Soaring</i>	12 min
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My visit to the Regina Club in October '88.

<i>Bluenose Soaring Club, 1988</i>	33 min
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The above videos are now available for sale or rent to members of SAC through myself. I am prepared to make copies of these items and sell or rent them to clubs or individuals in the Association at cost (buy for \$10 plus shipping from Halifax – rent for two-way shipping cost only). There are some items which are protected by copyright, eg. "The Quiet Challenge"; in these cases the club will be expected to pay the cost of shipping both ways and, if damaged or lost, to pay the replacement cost, which is about \$50.

Some of the items have been grouped together on one tape to make a showing length that would be convenient for a club meeting, say 30-40 minutes. Others are long enough to stand on their own.

The quality of the items vary. Some of them are very good, but if the copies that I have are second or third generation, then no matter how good your copying equipment may be, the final product will be mediocre. I am always on the lookout for originals to improve the basic quality of the library.

FAI Badges

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

The following Badges and Badge legs were recorded in the Canadian Soaring Register during the period 1 September to 31 October 1989.

DIAMOND BADGE

246 Richard Zabrodski Cu Nim
247 Dugald Stewart SOSA
248 Peter Rawes Erin

SILVER BADGE

784 Ian McKenzie Bluenose
785 Merrick Dawe Edmonton
786 Christine Futter Gatineau
787 Heinz Portmann Alberni Valley

DIAMOND GOAL

James Fryett	York	319.0 km	Std Libelle	Arthur, ON
Richard Zabrodski	Cu Nim	307.0 km	Ventus b	Black Diamond, AB
Dugald Stewart	SOSA	305.5 km	Std Cirrus 75	Rockton, ON
Peter Rawes	Erin	306.5 km	Pilatus B4	Julian, PA
Heinz Portmann	Alberni Valley	303.0 km	DG-400	Invermere, BC

DIAMOND DISTANCE

Paul Moggach	York	511.0 km	Std Jantar 2A	Arthur, ON
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DIAMOND ALTITUDE

Richard Zabrodski	Cu Nim	5030 m	Ventus b	Cowley, AB
Thomas Foote	Bluenose	5270 m	Open Cirrus	Warren, VT
Mike Thompson	Vancouver	5130 m	Grob 102	Cowley, AB

GOLD DISTANCE

James Fryett	York	319.0 km	Std Libelle	Arthur, ON
Richard Zabrodski	Cu Nim	307.0 km	Ventus b	Black Diamond, AB
Dugald Stewart	SOSA	305.5 km	Std Cirrus 75	Rockton, ON
Peter Rawes	Erin	306.5 km	Pilatus B4	Julian, PA
Heinz Portmann	Alberni Valley	303.0 km	DG-400	Invermere, BC

GOLD ALTITUDE

Richard Zabrodski	Cu Nim	5030 m	Ventus b	Cowley, AB
Mike Thompson	Vancouver	5130 m	Grob 102	Cowley, AB

SILVER DISTANCE

Ian McKenzie	Bluenose	60.0 km	K8	Stanley, NS
Jack Humphreys	York	60.0 km	1-23	Arthur, ON
Christine Futter	Gatineau	52.5 km	Skylark 4	Pendleton, ON
Heinz Portmann	Alberni Valley	110.5 km	DG-400	Invermere, BC

SILVER ALTITUDE

Jason Beattie	Kawartha	1820 m	Cherokee II	Omeme, ON
Lloyd Weber	SOSA	1460 m	1-26B	Rockton, ON
Heinz Portmann	Alberni Valley	1600 m	DG-400	Invermere, BC

SILVER DURATION

Marek Wakulczyk	Cold Lake	5:27	1-26	Cold Lake, AB
Jason Beattie	Kawartha	5:11	Cherokee II	Omeme, ON
Tillman Steckner	London	7:10	1-34	Embro, ON
Merrick Dawe	Edmonton	5:20	Libelle	Chipman, AB
Charles Gower	SOSA	6:02	1-26	Rockton, ON
Heinz Portmann	Alberni Valley	5:13	DG-400	Invermere, BC

C BADGE

2188 Marek Wakulczyk	Cold Lake	5:27	1-26	Cold Lake, AB
2189 Marc Stevens	York	1:05	1-26	Arthur, ON
2190 Jason Beattie	Kawartha	5:11	Cherokee II	Omeme, ON
2191 David Dubas	Air Cadet	1:10	2-33	Arthur, ON
2192 Mark Waldie	York	1:10	2-33	Arthur, ON
2193 Robert Bell	Champlain	1:25	1-26C	St-Antoine, PQ
2194 Marc Bernuy	Montreal	1:18	1-26	Hawkesbury, ON
2195 Aza Gagnon	Outardes	1:03	K8B	St-Esprit, PQ
2196 Michel Ravary	Outardes	1:26	2-22	St-Esprit, PQ
2197 André Baril	Outardes	2:35	K8B	St-Esprit, PQ
2198 Sylvain Sergerie	Outardes	1:13	Blanik	St-Esprit, PQ
2199 Ed Mitchell	SOSA	1:12	Blanik	Rockton, ON
2200 David Reyenga	COSA	1:07	2-33	Chemong, ON
2201 Heinz Portmann	Alberni Valley	5:13	DG-400	Invermere, BC
2202 Allyn Takahashi	Rideau Valley	1:25	1-26	Kars, ON

THE FAI SPORTING LICENCE

An FAI Sporting Licence is required for: 1) an "open" national, international or world sporting event, 2) a national, international, or world record, 3) an event sanctioned by the FAI requiring an FAI Sporting Licence (this is at the discretion of the FAI).

At the present time an FAI Sporting Licence is not required for badge flights or provincial championships in Canada. Sporting Licences re-

LIFTIN' the BLUES

video ad

ceived by Canadians from the Soaring Society of America are not valid unless the Canadian is a permanent, working resident of the United States. If a Canadian flies for another country, she/he is bound to that country for three years before she/he can fly for Canada. A "National" sporting event that allows foreign competitors is, by definition, international. Only national "closed" championships are free of the need for a Sporting Licence.

FAI Sporting Licences are issued by the Aero Club of/du Canada, Suite 306, 1355 Bank Street, Ottawa, ON K1H 8K7 (613) 739-1368, fax 739-1826.

Records A national aero club alone has the right to certify a record in its country. Only a record recognized by the Aero Club of/du Canada as a National Record may be certified by the FAI as a World Record.

Sporting Licence forms Forms are available from the SAC National Office as well as the Aero Club of/du Canada. If you cannot find a form in a pinch you could mail or fax the following information:

- Name
- Birth date (month/day/year)
- Hair and eye colour
- Address and postal code
- Place of birth (city and country)
- National organization (SAC)

1990 Sporting Licence price Normally a Sporting Licence costs \$10; however, for "RUSH" or last minute requests less than two weeks before an event, the cost will be \$25 plus costs (minimum \$10). Rush requests often impose higher costs on the office (telephone calls to straighten out details, extra mailing charges, trips to the office, and so forth). The office only operates with one part-time person, one (variable) day a week. In the interest of avoiding needless frustrations,

tantrums, and possible disappointment — please apply for your 1990 licence as soon as possible in the new year. Thanks for your kind cooperation and adherence to these few simple guidelines.

Elisabeth J. McCollum,
Executive Secretary Aero Club of/du Canada
as requested by Robert I. Carlsson, President

HAROLD'S NOTES — SAC TROPHIES

Updated trophy claim forms are held by me, the National Office and the editor of *free flight*. I don't know whether I should send out forms to all Senior OOs perhaps, or even to all members, but since so few are used each year, I wonder about the practicality of that?

Thanks to *free flight* for the prompting to all pilots to get their trophy flight forms sent in to me. I should have been plugging this sooner and have done more to get pilots thinking about trophies. I guess the serious "soarers" know all about the trophy competitions, but I wonder if the average member is even aware

Welcome to the club!?

continued from page 4

members, usually join a club to go soaring and to be in the company of like-minded people. But for the health of our clubs we need to be actively seeking new members. Many times they will seek us out, and because of our own indifference or plain lack of understanding, they go away never to return. So what can we do? Here are some ideas:

- If your club doesn't have a membership chairman and committee, get one.
- Educate every member in the club on the need for new members. Explain that the more there are the less the individual costs. There may indeed be more people wanting to fly the club plane, but it may mean more planes.
- Have a pamphlet (can be just a photocopied sheet) available to explain the particulars of joining your club complete with contacts and phone numbers of the membership committee. Follow up and make sure that all the members know where they are. Never let a visitor leave without one. Perhaps they may not join but they could give the pamphlet to someone who will.
- Make sure that every member is aware of the need to be friendly to visitors on the field. Take the time to explain what is happening. Show them the sailplanes and if possible get them to take an introductory ride. Don't send them to find someone or some place on the field. TAKE THEM! Make them feel like they are welcome. Glider pilots have proven to be the most friendly bunch with each other. Now let's spread it about.

Think about that young cadet who was left standing there, MONEY IN HAND, wanting to join. If my wife hadn't been there to talk to her

of them. Maybe we in SAC circles have a "closed-shop" mentality, and need to spread the word more. We probably miss out on "Significant Flight Certificates" even more so. George Dunbar (the past chairman) mostly picked up on these due to heresy. I wonder how we could get CFIs to send in recommendations for exceptional flights of their pilots? It doesn't cost anything, and gives those badge and record "also-rans" and second stringers a chance to deservedly get their name in lights, even though the flights didn't qualify for ... the usual FAI recognition or a trophy.

Harold Eley, SAC Trophy Chairman
(306) 584-5712
4136 Argyle Street, Regina, SK S4S 3L7

How would you feel if someone else got the Carling Trophy for the best flight of the year and you know you had a better one but didn't bother to claim it? What would the winner feel about the worth of his award if he knew of your flight? Do it! And, remember, the definition of "significant" in the certificate includes the nature of both the pilot or the glider, the country flown over, or ANY factor which would induce one hearing of the flight to say, "Hey, that was really great!" Tony

she may have left. Think about how you would feel if that cadet had been you. Then act accordingly.

I think this would be a good time to consider the Cadet gliding program. Every summer they graduate some 200 or more glider pilots. As an instructor in that program and a SAC member as well, I see some shortcomings in the way these young people are trained. BUT THEY DO TURN OUT 200 PLUS PILOTS EVERY YEAR. Some go back home to areas where there are no gliding clubs. All of them go home keen, eager to get into the air and to learn to thermal or fly ridge lift. They have heard vaguely about the Diamond C and want to go after some of these badges. Money is limited but if they are encouraged and a desire is built they will get what is needed. It would be ludicrous to think we can recruit all 200. But if we were to create a "Cadet Membership" or just actively approach nearby squadrons we could certainly get 50 of them. With further instruction they will become fine soaring club members and will foster an interest among their friends.

Perhaps some time I can write about the Mile Zero Cadet Soaring Association and the thinking that has been behind it all. But for now this is enough. I want to say that for the most part I have been well treated whenever I have visited a gliding club, particularly in the past months. I see a need for us to encourage club growth, to support our provincial organizations and to support SAC. And I have just scratched the surface on ways or ideas for recruiting. If your club has found an idea that really worked for you why not write *free flight* and tell us about it. Also read what Cold Lake has done in the 4/89 issue I mentioned at the start. Happy Soaring. ●

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vacant

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(418) 656-2207 (B)

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Dave Baker
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Surrey BC V4A 2B7

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Geo. Eckschmied
John Firth
Fred Kisil
Alex Krieger
Paul Moggach
Richard Vine

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Claresholm, AB T0L 0T0

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Mbr: Al Schreiter

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695 Coronation Blvd
Cambridge, ON N1R 7J9
Mbr: Dr. W. Delaney

PUBLICITY

Terry McElligott
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Mississauga, ON L4Y 2H6

METEOROLOGY

vacant

SPORTING

Colin Bantin
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Mbrs: Robert DiPietro
Wilf Krueger
Al Sunley
Hal Werneburg
Ulli Werneburg

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Robert Binette
1034 St-Denis
Montreal, PQ H2X 3J2

FAI AWARDS

Larry Springford
45 Goderich Street
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FAI RECORDS

Russ Flint
96 Harvard Avenue
Winnipeg, MB R3M 0K4

STATISTICIAN

vacant

TECHNICAL

Herbert Lach
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St. Bruno, PQ J3V 1Y3

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Harold Eley
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Regina, SK S4S 3L7

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Mbrs: Hal Werneburg
Bruce Finlay