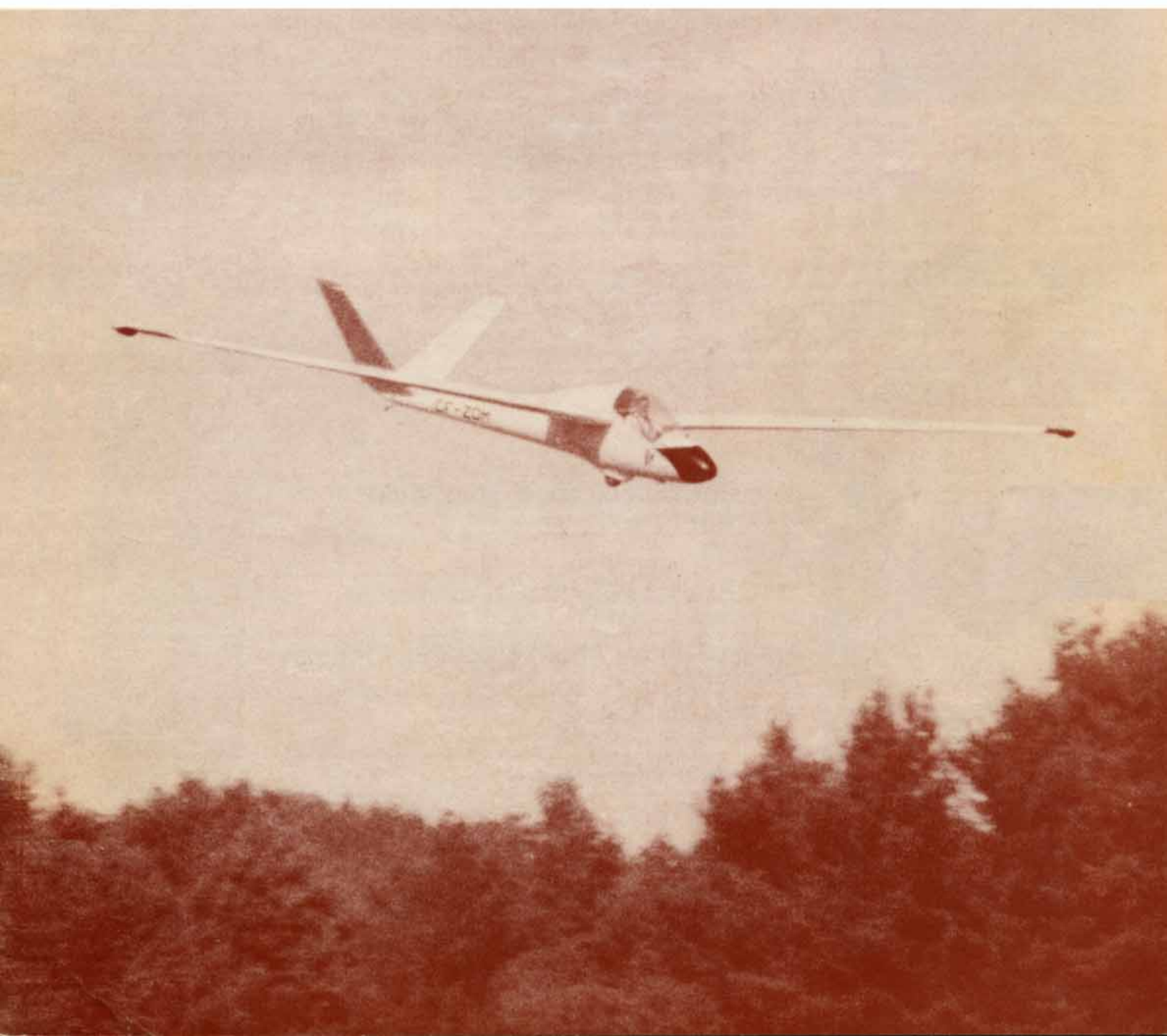


FREE FLIGHT

ISSUE 3/77 MAY/JUNE 1977





FREE FLIGHT



Issue 3/77 May/June 1977

Official Publication of

Soaring Association of Canada
L'Association Canadienne de Vol a Voile,
Box 1173, Station B,
Ottawa, Ontario, Canada K1P 5A0

Editor: **Robert F. Nancarrow**

Associate Editors:

John Bachynski

Charles Villanyi-Bokor

Lloyd Bungey

All material for future issues should be submitted to the editor at:

**43 Sealcove Drive,
Etobicoke, Ontario M9C 2C7**

Deadlines for Future issues:

Deadline for the July/August issue is June 17, 1977

Deadline for the September/October issue is August 12, 1977

Deadline for the November/December issue is October 14, 1977

Address changes should be sent to:

**Mrs. Terry Tucker,
786 Chapman Blvd., Ottawa, Ontario K1G 1T9**

Magazine design by Roger E. Murray, Graphic Design Centre, Toronto
Printed in Canada by the National Sport and Recreation Centre, Ottawa.
Imprimé par le Centre national du sport et de la récréation, Ottawa.

Cover: A rare bird "Fauvette 905 S" flown by L. Schober. The last one that is airworthy.

Contents

You Got Your Licence - Now What?

by Elemer Balint

3

AGM 77

6

SAC And Its Potential Development

by Karl Doetsch

8

Helpful Hints - About Turnpoint Pictures

by Jim Strong

10

Voyage En France

by Denis Gauvin

12

President's Message

15

Hangar Flying

16

Club News

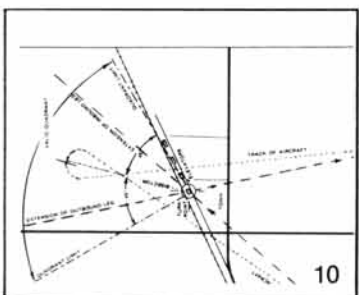
18

Overseas News *edited by Lloyd Bungey*

21

Letters & Soaring Calendar

22



YOU GOT YOUR GLIDER PILOT'S LICENCE! Now What?

by Elemer Balint

At first it all appears so simple. Get your passenger carrying endorsement and fly intros until you get sick of it. Get your instructor's rating and teach students until you get sick of them. Whatever you do, sooner or later every glider pilot must arrive to the crossroad of decision: cross country or not?

This is the time for the crunch (pun not intended). In addition to the natural aversion against cutting the umbilical cord and setting out on a journey of dubious destination and outcome, there are many other obstacles and excuses of which generous use is being made by many. No wonder so few ever make it. (Only about 23% of SAC members reached Silver C status.)

All the obstacles notwithstanding, cross country soaring is no mystery and can be successfully negotiated by any reasonably skilled pilot if systematic preparation is provided. The emphasis is on preparation and much of it can be done during local soaring and if a set program is consistently followed, the tyro will gain self confidence seeing that he is able to perform competently each separate element or manoeuvre required during cross country soaring.

Cross country soaring is nothing more than an assembly of the following elements:

1. Spot landing ability
2. Landing field recognition
3. Navigation
4. Knowledge of weather
5. Inter thermal flying
6. Final glide calculations
7. Flight documentation (for badge or record flights only)

Any of the above can be practised during local soaring and if the pilot consistently negotiates the individual exercises all that remains is to put it all together and go.

Let us examine these points one by one.

SPOT LANDING

Most local pilots are satisfied to land somewhere on the home field and as long as they don't hit the fence at either end, feel quite safe. A few hundred feet here or there does not matter much if you don't ruffle the sensitive feathers of the CFI.

ELEMER BALINT was killed in a glider accident near Omeme, Ontario on Sunday, April 17., 1977. Elemer was well known in gliding circles in Canada through his association with several clubs, as unofficial spokesman for motorgliding and as a regular and prolific contributor to **FREE FLIGHT**. Prior to his tragic accident he phoned me about an article he was preparing, as usual he was enthusiastic and anxious to get his message across - the message this time was how glider pilots could derive more enjoyment from their sport. The following article arrived in the mail a day or two after his death and is published as a tribute to Elemer who gained much pleasure from flying and gave much of himself to promote soaring in Canada. The Canadian gliding fraternity has lost a hard working member and a good friend.

This practice however will never teach you to appreciate how amazingly small fields are safe and sufficient to land a glider, provided you touch ground at exactly the intended spot having exactly the intended speed.

Practice makes masters, so get on with it. Place a piece of white cloth about two feet square on the field and try to touch it with the wheel every time. If you touch short of it, consider yourself having broken a glider. After coming to a half measure the distance from the mark to the nose of the glider. You will be surprised how short that distance really is. Next time try to make it even shorter. Keep an honest log of your progress. With dedication you may reach 100% accuracy and consistency, if not, at least you will be aware of your own limits and plan your off field landings accordingly. You will be safe.

LANDING FIELD RECOGNITION

From the previous exercise you will know how large a field you need. The next step is to recognize the quality of the field. In the area of most gliderports there are literally dozens perhaps hundreds of seemingly suitable fields within sight of a

local pilot. During each local flight select about half a dozen which appear OK. Check such items as colouration of crops, obstacles, rocks, cattle, slopes, drainage ditches, etc. After landing, take your car and drive to the selected fields and check conditions against your expectations. Keep log of your percentage of judging right. Select a number of sure bets, such as tall crops, particularly corn, stone piles and so on. Soon your judgment will improve to reliable standards.

NAVIGATION

At first it does not seem to matter much whether you know where you are or where you are going. During the first few cross country flights it is better to concentrate on staying high, keeping within gliding distance from suitable landing fields and so on. After a more or less successful landing some kindly soul will tell you anyway. Still, you should take a chart with you, preferably the same kind your base people have, so that you can specify your exact location on the phone while the same map is being looked at on both ends of the line.

Later however, when triangles, out and returns or goal flights are negotiated some form of navigation will be necessary. During glider flights all navigation is visual, and customarily it is a mixture of plain map reading and dead reckoning. The best way to go about it is to enroll in a navigation course either with a nearby flying club or community college. Many of them offer excellent instruction.

THE WEATHER

Do not hesitate to call your local weather office either the previous day of flying or the same morning, every time you intend to fly, even locally. Ask questions about temperature lapse rate, altitude of the inversion layer, thermal triggering temperature, strength of thermals, the time of strongest convective activity, wind strength and direction at various altitudes, etc.

During local soaring practise crisp centering techniques, observe thermal spacing and altitude band of strongest lift. Don't just sit dumb and happy at 6000' on top of your first thermal.

INTER THERMAL FLYING

Laszlo Horvath advised me a few years ago in Estrella not to waste too much time in thermals. "While in a thermal, you are not going anywhere," he said. Practice for inter thermal flying can be set up locally very well indeed. A 50 km triangle can be flown up wind from the field in a 1-26 without any risk of being caught out. If you can maintain 3000' altitude you will always be within gliding distance from home base with about 1000' reserve altitude for the circuit.

Half an hour or less local soaring should be enough time to find out if thermals can be found with regularity and altitude maintained above 3000'. If that is the case set out for your first turnpoint at best L/D speed. After a few more thermals along the course if you gain altitude then fly a little faster between thermals. Most clubs have one hour or so time limit, so if you wasted too much time before setting out you may not have enough time to complete the triangle. In that case make it an out and return. In any case always go somewhere, even if the distance is short. Don't just float around aimlessly. Soon you will get the hang of it and enjoy yourself immensely.

FINAL GLIDE CALCULATIONS

There are many sophisticated computers in use with a variety of success. If you are so inclined, by all means buy one and play with it. For the beginner however, there is a very simple method which will tell you how far you can reach from any given alti-

tude regardless of wind velocity, with reasonable accuracy. This method is particularly easy in Ontario where concession roads are almost exactly one mile apart.

What you do is, set out on your course at the constant speed you intend to travel. Once your speed is stabilized, take an altimeter reading (tap the instrument) while exactly over a concession road and maintain your speed as steady as you can. After having travelled one mile (when you are vertically over the next concession road) check your altimeter again for altitude loss. Divide your altitude above ground with this value and you will have the distance in miles you can glide from that point, in still air over level terrain. It takes only a minute and can be repeated any number of times. It does wonders for your peace of mind if you know that you can reach your destination, or in turn alerts you early if you should be looking for a landing field.

This is a very good exercise that can be practised on any local soaring flight.

FLIGHT DOCUMENTATION

After having gone through the above exercises locally, you will be a much more competent and confident glider pilot. If you are a little lucky, your first cross country may qualify for the Silver C distance. There is no reason to waste a good flight on a technicality, therefore you should know the rules. The FAI soaring awards and rules booklet costs 25¢ and the FAI Sporting Code \$1.50. Buy them

and learn them by heart during the winter months. It is interesting reading, makes sense and will keep you out of mischief for a while at least.

PUTTING IT ALL TOGETHER

As mentioned before, you are much more confident now. Be careful also and prepare well for your first flight into the unknown.

DO: Decide to go only if you can maintain a reasonable altitude consistently (3500 to 4500 feet). It may be possible to fly cross country at lower medium altitudes but leave that for later.

-Check the shaking of your hands and knees and get prepared deliberately, preferably use a check list of items such as barograph, food, water, maps, telephone numbers, retrieve arrangements, etc.

-Test the weather locally first before making the final decision to set off on course.

DON'T: Be Hasty.

-Ever be out of gliding distance of some landable field, preferably several.

-Take any chances if you get low. Decide to land while the going is good, and you have reasonable altitude to fly a decent pattern, just like at home.

-Fly into uncertain weather ahead. Detour if necessary or change course entirely if the weather is unco-operative on course.

I hope you will try and have a lot of fun.

A Great Ship and a Delight to Fly



Available now for 1977 season

PIK-20B 90° flaps - USA allows timer on flaps for use in restricted 15 m class.

PIK-20D Flaps and spoilers - lock flaps for use in restricted 15 m class. Elevator trim interconnected with flap setting.

Watch For

PIK-20E Motor Glider - retractable, electric start engine.

Technical Data PIK-20D

Span	15.0 m
Aspect Ratio	22.5
Empty Weight	220.0 kg
Max. Weight	450.0 kg
Water Ballast	140.0 kg max.
Wing Loading	30 - 45 kg/m ²
Load Factor	+ 7.1 to - 5.1
Best L/D	42 @ 108 km/h
Min. Sink	.63 m/s @ 85 km/h
Stall Speed	60 km/h @ 300 kg
Max. Speed	262 km/h

For further information please contact:

George Couser,
735 Rivière aux Pins,
Boucherville, Quebec, J4B 3A8
(514) 655-1801

OCTO for AVIATORS

OCTO MARKETING LIMITED is now introducing the "OCTO FLIGHTSUIT" to the general aviation scene.

Now every aviator can own his 50% cotton 50% polyester machine washable flightsuit, with more features than even the military pilot dreamed of.

CHECK the chart for your size and order yours now.



\$54⁹⁵



\$29⁹⁵

The Lightweight Jacket is made of the same fabrics as the flight-suit and with the same attention to detail.

Sizes are XS, S, M, L, XL.

COLORS:

NAVY
RED
TAN

Ask us for more information on the following Octo products:

Winter Jacket	\$55.00
Winter Pants	40.00
Flightboots	39.95
Aviator Shirt	8.95
Sweatshirts	8.95
T-Shirts	4.95
Caps	4.95

We can also supply you with crests, decals and T-Shirts printed to your specifications.

SIZE CHART

CHEST	34"-35"	36"-38"	39"-41"	42"-44"	45"-47"
5'5"-5'6"	EXTRA SMALL				
5'6"-5'7"		SMALL			
5'8"-5'10"		SMALL TALL	MEDIUM		
5'10"-6'0"			MEDIUM TALL	LARGE	
6'1"-6'2"				LARGE TALL	EXTRA LARGE
5'3"-6'4"					X-LARGE TALL

Send to: **OCTO Marketing Limited**

Box 150
2080 rue de l'aéroport
Beloeil, Quebec
J3G 4T1
(514) 467-7062

WHEN ORDERING:

Add \$1.00 postage.

Send cheque or money order with your order.

We can also send C.O.D. in which case send \$5.00 deposit with order.

Name _____

Address _____

AGM77AGM77AGM77AGM77



Terry Beasley and Terry Tucker



AGM Banquet



Freuke Carpenter presents John Firth with Ball & Chain Trophy.



Elemer Balint presenting the Roden Trophy to Walter Chmela, President of York Soaring

The 1977 AGM was a considerably more brisk affair than the previous one, unnecessary arguments were held to an absolute minimum and it was gratifying to have enough time for two excellent presentations. One by Karl Doetsch on the possible future orientation of SAC services and activities and another by Dave Marsden detailing the design philosophy of his "Gemini" two seater high performance variable geometry sailplane as well as the "Spectre" single seater presently under construction.

Karl's presentation was smoothly professional, well researched and presented many provoking ideas, (see page 8 for a summary of Karl's AGM presentation). Comments and ideas from the membership at large should be sent to Karl or your Zone Director, so that the consensus of opinion may be discussed with the Board of Directors and a policy and planning proposal may be prepared for the next AGM. While full credit should be given to the many dedicated volunteers who contribute a lot of time while serving on the SAC executive, it is time to recognize the fact that SAC as a body lacks clear cut goals to achieve set objectives.

Karl's lucid presentation poignantly illuminated this very real need.

Dave Marsden is a man of imagination and intellect, a patient builder and a fine pilot. During the last few years in quick succession he designed and built the "Gemini" two seater which is one of the highest performance two seaters in the world today; developed and built a propeller retracting mechanism with fixed engine installation for motorgliders; designed a foot launched canard glider with cross-country soaring capability; and designed the "Spectre" variable geometry 15 m racing sailplane the construction of which is well advanced.

On the "Spectre" the combination of high speed low drag wing section with full span chordwise extending flaps and ailerons will allow very high wing loading (10 lbs/ft²) for inter thermal flight. Due to the low drag coefficient of the profile used, this should result in a 15% to 25% speed increase over a PIK-20 at the same L/D. In a thermal the full span flaps are extended which not only increases wing area but converts the profile into one with a very high lift coefficient, thus permitting slow circling speeds at low sink rates.

These configurations were tested in the wind tunnel and results confirm the soundness of theory. We hope to hear more of these projects from Dave in future issues of FREE FLIGHT.

In addition to the over 100 members attending the AGM, there were Paul Schweitzer and Tom Doherty of the Schweizer Aircraft Corporation, Ken Smith of National Sports Federation, Ron Wyatt and Don Taylor of the insurance agency.

The Instructors' Committee has been under the leadership of Walter Piercy for a number of years and this year Walter has decided to step down. A vote of thanks was moved for Walter's long term of devoted service, this was enthusiastically seconded by all present.

As you probably know by now the insurance rates for this season have been reduced to \$37. per pilot. \$25. of this is for hull value and \$12. for public liability. Private owners will pay a premium of 1.65% of hull value. There was a motion for the Insurance Committee to report to the new directors on the possibility of having the premiums for 1978 split, so that the hull premium will be a percentage of the hull value and the public liability prem-

AGM77AGM77AGM77AGM77



L. to R. Terry Beasley, Terry Tucker, Al Schreiter, Walter Piercy (Hidden), Russ Flint, Karl Doetsch.



AGM Banquet

Photos by Nick Patterson

ium will be split among the pilots.

The committee reports were reviewed quickly with only brief discussion until just before lunch a motion was made to obtain suggestions for changing the scoring formula for the Roden Trophy. York Soaring has won the Roden for the last three years; prior to that it was SOSA in 73, MSC in 72, Lahr in 71, MSC in 70 and Buckingham in 69. The present formula is:

$$R = \frac{F + \frac{M}{6} + 20(A + B + 2C)}{10G} + 25(G-1)$$

F is the total number of flights,
M is the total flight time in minutes
A is the number of A badges gained
B is the number of B badges gained
C is the number of C badges gained
G is the number of club gliders

Suggestions should be sent to your Zone Director or to Bob Gairns.

After lunch a number of items of new business were taken care of like establishing the Maritime Zone, a two year term for Directors, membership year to start April 1st, revision of objectives in the By-Laws, changes to the By-Laws, removal of fee references in the By-Laws. All of these were carried except the motion to exclude hang gliding from the Memorandum of Agreement was defeated - Lilienthal

would have been pleased!

A motion to reduce our National Team from four pilots to two was defeated by a unanimous vote. We hope that all who voted will be as active when it comes to send our pilots to France in 78. Surprisingly there was little mention of the next World Contest - it's later than you think guys!

The results of the elections for Directors were:

	ZONE
MARITIME	Newfoundland S.S.
Mr. J.J. Williams	
QUEBEC ZONE *	
Mr. T.R. Beasley	Montreal S.C.
ONTARIO ZONE *	
Mr. A.O. Schreiter	SOSA
PRAIRIE ZONE *	
Dr. R. H. Flint	Winnipeg G.C.
ALBERTA ZONE	
Mr. H. Byrt	Edmonton S.C.
PACIFIC ZONE	
Mrs. C. Timms	Vancouver S.A.
DIRECTOR AT LARGE	
Dr. K. H. Doetsch	Gatineau G.C.
DIRECTOR AT LARGE	
Mr. P. Thompson	SOSA

(* indicates Directors who will hold office

for two years, the balance one year only)

Following the dinner, John Agnew looked after the trophy presentations with help from Freuke Carpenter, Terry Beasley, Elemer Balint and Paul Schweizer. Here are the 1976 winners:

CANADAIR TROPHY	
best five flights of 1976	Dave Tustin
B.A.I.C. TROPHY	
best flight of 1976	John Firth
INSTRUCTOR'S AWARD	
outstanding instructor 1976	Fred Mueller
RODEN TROPHY	
best utilization of club equipment	York Soaring Assn.
BALL & CHAIN TROPHY	
greatest contribution by a married pilot	John Firth
Jonathon Livingston	
Seagull TROPHY	
outstanding Canadian air cadet of 1976	P. Vander Tilar

The presentations were followed by movies including "Dawn Flight" and a slide presentation of the 1976 World Contest Team's trip to Finland with slides selected and narrated by Jim Carpenter - most enjoyable!

SAC

by Karl Doetsch



The SAC Board of Directors has been giving consideration to the possible development of the Association with a view to providing greater benefits to the membership at large. This deliberation has led to the identification of choices that will need to be made within the next months if the Association is to avoid stagnation and the possible disillusionment of its members. It is the purpose of this article, the essence of which was presented at the 1977 Annual General Meeting of the SAC, to provide the membership with an overview of the main functions of the SAC and to suggest some avenues for its future development.

The activities of the SAC may be classified under the following main headings:

1. Communication amongst members.
2. Communication with external agencies.
3. Services to members.

Each of these groupings will be considered in greater detail in the following sections.

1. COMMUNICATION AMONGST MEMBERS

1.1 Free Flight

The major vehicle available to SAC for general communications amongst members is Free Flight. This magazine allows the dissemination of information and news principally on Canadian soaring matters and provides a forum for communication between individual members and the membership at large. Lack of funding does not appear to be restricting the quality of the magazine significantly at this time. Free Flight can be developed principally by encouraging groups and individuals to utilize the magazine even more for promulgating information. The inclusion of additional regular features should both provoke more response and provide a firm basis for the editor in his task of continuing to produce a magazine of high quality and interest. Possible additional contributions could be the following:

SAC Executive News
SAC Committee News
Foreign News
Contest News
Instruction/Safety Features
Calendar of Events
FAI Certificate Achievements
Club Ladder

1.2 Communication between SAC Executive and Membership at Large

The SAC Executive carries the responsibility of being the figurehead of soaring in Canada and, as such, it must provide the focus for matters concerning that activity. Available to assist in disseminating information to the membership are the following:

Annual General Meetings
Free Flight
Special Bulletins

1.2.1. Annual General Meetings (AGM's)

The AGM's provide the only opportunity for collective face-to-face meetings between those members from across the country who are not necessarily involved in competition flying. The benefits to be derived from this forum should be explored and tapped, and consideration should, perhaps, be given to a change in emphasis for some aspects of the AGM's. The full meeting could be extended by one-half day to allow greater discussion of topics of general interest at the club-to-club level. Time spent on official AGM-type business should, however, not be increased.

1.2.2. Free Flight

The executive should make greater use of Free Flight for discussing general issues of importance to the membership.

1.2.3. Special Bulletins

These should be employed by the executive for disseminating particularly important or urgent information. Printing and postage are significant cost considerations. The membership should thus give careful consideration to the desirability of increasing the use of such bulletins.

2. COMMUNICATION WITH EXTERNAL AGENCIES

Communication with external agencies is well illustrated by the number of committees serving SAC. It may be classified according as to whether it is with various levels of government or with other agencies.

2.1 Communication with Government

The government agencies presently dealt with are the following:

- a. For Legislative Aspects
Ministry of Transport
Department of Communications
- b. For Services and Grants Aspects
Department of Health and Welfare
Department of the Environment
Various Provincial Governments (through Provincial Associations)

The main purpose of communicating collectively with government agencies is to provide the government with a single point of contact for matters concerning legislation, services and grants. The collective nature of SAC is doubtlessly an important contributing factor to the generally good and significant relationships between the government and SAC. It is important for SAC to maintain and expand the responsibility and trust established with government agencies.

2.3 Communication with Other Agencies

Communication with other agencies is primarily with international organizations concerned with soaring, such as CIVV, in which Canadian viewpoints may be presented, and with other national soaring associations. Such contact is important to ensure both that Canadian soaring is kept abreast of the movement in world soaring and that Canadian pilots may enjoy reciprocal privileges when flying in other countries. Such communications are adequately pursued at this time.

3. SERVICES TO THE MEMBERSHIP

The principal services offered to the membership are the following:

Communications identified in Sections 1 and 2

...and its potential development

Insurance
Instructors' Clinics
Sanctioning of Glider Meets
Disseminating of Advice
Technical Committee
Sporting Committee
Radio Committee

FAI Records and Awards
Historical Records
Safety Committee
Medical Committee
Air Cadet Liaison
Trophies and Statistics

These services already cover a wide and valuable range, and improvement can generally be sought under the above established headings rather than through the generation of new headings. Some additional services identified at a recent SAC Directors' Meeting were, in an approximate order of priority:

- Information Services on various aspects of Club Operations.
- Advanced Instructors' Schools.
- Cross Country Training Schools.
- Contest Support for Clubs.
- *Procurement of Contest Kits (Start Gates, Radios, etc.) for loan to member clubs.
- *Procurement of a high-performance two-seater glider for Cross Country Training Schools.
- Administration of certification and licensing.
- *National team flying periods for World Contest training.
- *National Soaring Site.
- *World Gliding Contest in Canada.

(*Contingent on availability of government grants)

Many of these items hinge on the availability of increased funding and of the time and effort necessary to implement changes.

It is conjectured that the availability of additional effort is a major stumbling block to improving services. At this time, the SAC Secretary/Treasurer is carrying a greater workload than can reasonably be expected of an individual and, for this reason, it is proposed that the employment of a Manager for SAC

come high on the list of priorities for possible improvements to the Association. His/her functions would be the following:

1. To administer the SAC affairs.
2. To provide continuity of liaison with government agencies.
3. To devote time to exploring various ways in which services and grants from government agencies may be obtained.
4. To communicate with the membership on SAC issues.

It is unlikely that such a manager would show immediate financial returns on the investment in his salary, but it is apparent that unless SAC does take this step of employment, it runs the danger of a disillusioned membership, primarily because volunteers do not have available the extra time and effort necessary to provide the proposed continuous improvements in services and communications which appear to be demanded by the membership, without some such assistance from a coordinator.

With regard to the possibility of employing a National Soaring Coach, advantages for the Association can be seen through his assuming or providing the following:

1. Responsibility for improved safety standards in SAC member clubs.
2. Responsibility for Instructors' courses, particularly if these are to be expanded in scope.
3. Dissemination of good flying techniques to member clubs.

It is unlikely that such a coach would be able to generate a revenue to compensate for his salary, and the latter would thus need to come from SAC overheads. It is possible that some long-term benefits in improved insurance rates could result if accident levels were reduced as a result of his employment.

SUMMARY

The foregoing briefly identifies the prime functions of the SAC and some possible avenues for improving services to the membership. Some of the items listed for improvements which, at first sight, might appear to be too ambitious, could be attainable if sources of dedicated grants were identified. With regard to the question of additional staff for the SAC, it would be advantageous to place the employment of a Manager near the top of the list of priorities, particularly if a competent individual who, through personal circumstances, would not require a salary in the range that the position should command, could be found. The prime reason for recommending such a course of action is that, with a Manager, it would become much more likely that the other priorities for improvement could be achieved. The additional cost of employing a National Soaring Coach may be such as to preclude employing the same until the SAC Membership becomes larger.

The implementation of many of these improvements would need to be reflected in corresponding changes in the annual membership fees required by the SAC. The Board of Directors is at this time reassessing the costs both of the present services and of the various proposals for improvements, whilst taking into account the possibility of the availability of government grants. When this study has been completed, the Board will seek endorsement from the membership at large for its long-term plan for improving the services and benefits of the SAC to its members. In the meantime, feedback from the membership on these issues would be welcome either directly or through Free Flight.

FOR NEW AND

USED SAILPLANES, INSTRUMENTS,

RADIOS, ETC.



BRITAM AVIATION

CANADIAN SCHWEIZER DEALER

Box 660 Station 'Q' Toronto, Ontario M4T 2N5

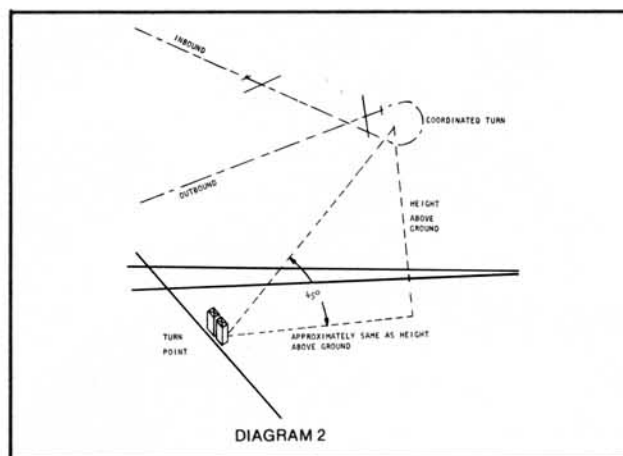
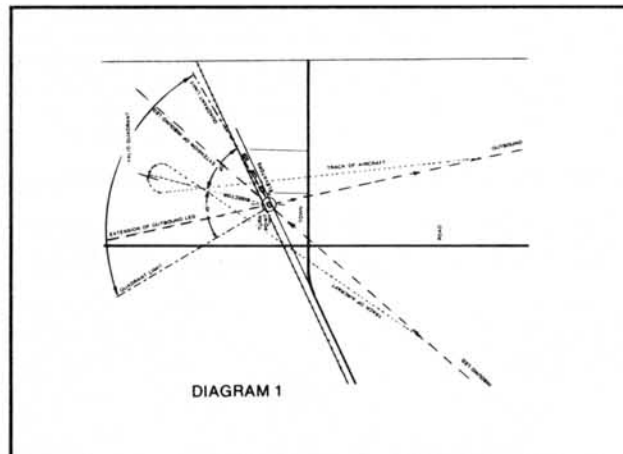
Telephone DAY: 416-925-5571 NIGHT: 223-6487

FIELD OFFICE AT ARTHUR GLIDER PORT, 18 MILES

WEST OF ORANGEVILLE ON SOUTHSIDE OF HWY. NO. 9

HELPFUL HINTS

About Turnpoint



Pictures

A well known pilot in the west, Jim Strong, is a member of the Edmonton Soaring Club, in which he has held various official positions. He was competition director at the Claresholm nationals in 1975. He is an instructor and owns a Libelle.

During the Canadian Nationals, George Dunbar and I had the privilege of going over 150 rolls of pictures and found there are as many ways of taking these photos as there are pilots.

I noticed several pilots took consistently good turnpoint photos like Mamini, Marsden, Webb, Timm and Carpenter. After talking to some of them I found they use a simple coordinated 45° banked turn or a slight variation thereof. I am sure they all started with coordinated turns.

For all you badge aspiring pilots who are not turnpoint masters, try to follow these set of rules:

1. The camera should be in a firm fixed mount for ease of use. Normally the camera is an Instamatic type with no buttons to fiddle with other than the shutter. Some people even use the automatic (spring wound) type. In any case make sure when sitting comfortably in the cockpit with your left arm resting along the side you can get to the shutter release easily. Some mounts have a convenient extension and those with two cameras, the extension fires both cameras. The rules specify the left wing tip must appear in the picture and the lense must NOT be more than 3 cm from the canopy.
2. Pick a prominent turnpoint with a

strong Linear feature. Elevators are good as they are easy to see, and the railroad line and roads line up easily.

3. Always pick a single item not a group. At St. Michael it is not the elevators but rather the most easterly elevator.
4. Fly as far beyond the turn as you are above ground. If you are 5000 ft. AGL, you better fly 1 mile beyond. This will allow you to take the picture with 45° of bank. When you get better at it you can move in closer.
5. Use a complete coordinated turn.
6. Sit back comfortably and use the wing tip to sight on the turnpoint. The point will sweep from behind the the wing and once it appears in front of the wing take the shot. I found if the turn is poorly coordinated the picture will be fuzzy. If coordinated it will be very clear.
7. Get the procedure worked out by taking some test shots before your first task.
8. If you use two cameras, have one processed and hang onto the other. Some one will either blow the development or cut the negatives - especially if the task was a successful 300 km triangle. In this way you have at least got a back-up film.
9. A strip of contact prints should be made so that the best task board and turnpoint photos can be selected for enlargement. Use 4 x 5 or larger prints. Overlay the prints of the turnpoints with mylar or onionskin and mark on them the inbound and out-

bound course lines, the bisector of the extensions and the limits of the quadrants. This will leave no doubt that the photo was taken from the correct sector, and the O.O. can sign it off with confidence.

If the submission includes:

- A. SAC badge application completed and signed,
- B. Barograph trace, annotated,
- C. Enlargements of turnpoint photos as above and uncut roll of negatives,
- D. Aeronautical chart showing T/O, landing and turnpoints.

The application is likely to receive approval.

If you study the two diagrams it may help you understand the procedure a little better. Also until pilots get confident taking the picture they should take two pictures. Diagram 1 shows a typical town much like St. Michael or even Chipman with several elevators along a rail line. The circled elevator is the declared turnpoint. The inbound and outbound legs are shown, which you will draw on your map, as well as their extensions beyond the turnpoint. They are drawn here to show where the bisector came from. The 45° to each side of the bisector are two lines indicating the quadrant limits. You can take your picture from anywhere in that quadrant, however it is much easier to take and certainly clearer to read the picture if it is taken from the bisector about your height above the ground away from the turnpoint. Diagram 2 shows the procedure in elevation.

The following is a summary of an article the first appeared in the July 1976 issue of "Le Pingouin" the newsletter of the Quebec Soaring Club.

In May 1976, eleven members of the Quebec Soaring Club paid a gliding visit to France. In July the previous year the Quebec club was host to a group of French pilots under the auspices of the Office Franco-Quebecois de la Jeunesse. Several club members then had the idea for a similar project to find out how they practise our sport in France.

The age limit for participants in the project was 35 years however the sponsor could be older. Alex Kreiger became responsible for the group; "Mr. President" as we called him in France. He prepared an application for a training course that the OFQJ accepted. A month or two before departure it was apparent that those who had made application would be accepted.

A meeting was held in February at Laval University with Mr. Rene Hersen, head of the Centre National de la Montagne Noir. At this meeting a course schedule was set for one week in Paris, the second week at Montagne Noir and a third week at Cherence.

The departure was fixed for May 3rd and the group met at the LaSalle Hotel in Montreal; Gilles Boily, Richard Bernard, Andre Gareau, Georges Cousineau, Walter Pille, Julien Morasse, Omer Martin, Jean Provencier, Pierre Lavoie, Denis Gauvin and our "President" Alex Kreiger. There were six other pilots from the clubs at Sherbrooke, Saint-Jean and Buckingham. After a word of welcome from the directors of OFQJ, the plane tickets were distributed and we left by bus for Mirabel.

After checking the baggage we went to the bar to wet our whistle. The departure was delayed by an hour and a half, it was therefore one or two glasses later that we boarded the Air Canada 747. The crossing was uneventful and two meals and a movie later we landed at Charles de Gaulle airport. This day, Tuesday the fourth, was free. Each went his own way, some to the nearest pub, some to Notre-Dame, to the Eiffel Tower and others to bed as it had been a long day without sleep.

On Wednesday we had a motor coach tour of Paris; the Latin Quarter, Montmartre, Place du Tertre, the Eiffel Tower, and Notre-Dame. All this broken by lunch at a little restaurant near the old marketplace.

On Thursday we toured the outskirts of Paris. First, we visited the old town of Provins and its fortifications and after lunch at the Youth Travel Centre we went to Fontainebleau to visit the Chateau. Later we went to dinner at Moret-sur-Loing eating outside as darkness fell. Everyone had fun with a drinking competition accompanied by Quebec songs. Our guide, Didier Huttin who had two years to prepare, won the competition.

Friday we were back to serious business with workshops and discussions on France at the Centre International de Sejour. At lunch we were joined by Mr. Michel Cruette who was the "President" of the French group which visited us last year. During the afternoon we had our foreign licenses validated.

Saturday was a free day, but several

went to the Aeroclub de Cherence where they met Michel Cruette and Christian, the CFI. They were checked out and everyone had a chance to fly in good conditions; 9000' easily. Later that evening some returned to Paris (60 km) and others slept at the field.

Sunday was a free day until 10 o'clock in the evening. We slept on the train that took us to Toulouse arriving about 6:30 Monday morning. May 10th, Pierre Lavoie and Georges Cousineau met us at the station as they had left Wednesday afternoon with Gilles Boily and Paul Gosselin to visit Marseille and the Cote d'Azur. When we got up it was raining heavily which was a change for ever since our arrival the weather had been magnificent with temperatures of 28° everyday. We arrived in a mist at Montagne Noir where we were met by Mr. Hersen, head of the centre.

We met the centre instructors and more particularly those who looked after us as there was one instructor assigned to each group of three pilots. They explained the operation of the radios and gave us a microphone for each one. At the same time we got a map of the area and instructions about the runways which were extraordinary to say the least. We were also each given a parachute as they are obligatory equipment in France. We were billeted two to a large room and meals were taken in the cafeteria where the food was excellent. We also found a ping-pong table and a billiard table there. Some students had some surprising experiences with the pedal toilets but after having a good laugh they got used to it.

When we woke up Tuesday morning everything was misty, the ceiling at Montagne Noir was 450 m and visibility was 50 feet in rain. Several instructors took advantage of it to give us some theory courses; meteorology, navigation, study of turn points etc.; questions to refresh the memory but also to make us see their teaching methods. We were also instructed on the use of the final glide calculator and each of us was lent one to use later in practice. We were getting eager to fly after two days of classroom work but the forecast was not favourable.

Wednesday, the weather was the same, we still couldn't see the valley 250 m below. During the morning we saw some films and an instructor told us of some of his humorous experiences and gave us a demonstration with the aid of a small wind tunnel. Afterwards we visited the glider repair shops and Gilles Boily almost had tears in his eyes to see all the people, space and equipment there. Then we went to the hangars to see the gliders and towplanes. Wow! The hangars are huge and they are full - a good forty gliders! We returned then to the office where we were each given the text books for the course, material of great value to us.

The weather improved after lunch and finally that was it; we got out the equipment and went flying! There are Breguet 904s, Bijaves and an ASK 16 motorglider. The take-off was different and impressive. For three days we've been told that the runway is like an aircraft carrier and now we see it's true.

After rolling 600' or 700' we found our-

selves 700' above the ground with the altimeter still at zero! And the landing was strange also. We made a very high and short final and literally dove to the runway threshold as the wind was always rather strong on the plateau. Several of us were alarmed to find ourselves at 300' while four or five miles from the field. But the centre's instructors were very familiar with the local conditions and were not the least concerned. They found the ridge lift that brought us back to the field at 1000'. That night everyone was happy, we had been able to fly and we had a good talk with the twenty French students who were at the centre with us.

Thursday morning, bad weather again and we had films and another little theoretical course. It was arranged that afternoon to visit the Aerospace Centre at Toulouse but those who wished to stay at the centre could do so. At noon it look like it was clearing. Heads or tails? To stay or to go? Walter and Pierre Lavoie decided to stay and they were able to fly in the best conditions which prevailed during our stay at the Mountain! For the Concorde devotees and those who were pessimistic about the weather, that was the unkindest cut of all. Concorde 01 awaited us in the hangar. We looked at it, touched it and admired it from all angles. We went aboard and found the cabin very small compared to the Boeing 747. All of the seats had been removed for the life of this machine was over. This Concorde which came to Mirabel for the opening is going into a museum. We went on to the flight deck. What a sight! Finally one of us sat at the controls, I don't remember who; then there was a procession as each one of us took a turn sitting at the controls of this magnificent bird. I found myself as Omer's co-pilot - we looked very professional!

At this hangar we were directed to the "Aeroformation" centre where the Concorde and Airbus pilots are trained. All the lessons are planned there; in English, would you believe! There are some partial control panels for training pilots, engineers and mechanics. In addition there are two complete flight simulators, one for the Concorde and one for the Airbus. Everything was impeccable in there with wall to wall carpeting and airconditioning. We next went to the hangars where the Concorde and Airbus are built. There were Concorde 9 to 17 all in one factory. In the adjacent hangar they assemble the Airbus; there were several of them there as the Airbus hangar is huge too. The half rear stabilizer resembles a glider wing. The tail is higher than a five storey building. We had an exceptional guide who knew the answers to nearly all our questions or knew where to find the answers. So we learned that Concorde's maximum L/D is 7 to 9 depending on whether its speed is subsonic, transsonic or supersonic. Our guide also gave us a rather complete picture of the formation of the French aeronautical establishment and on that note our tour ended. We learned that, contrary to a previous announcement, photos were permitted. What a disappointment as we had all left our cameras in the bus. But we were given fifteen minutes to come back and it is a race of "Kid Kodak". Click! Click! Click! On all sides. We change film and go to it - you take my picture and I'll take

PHOTOS BY WALTER PILLE

BY DENIS GAUVIN



yours! We soon returned to the Mountain happy and content and pleased to have occupied the Concorde's pilot seat - a marvelous memory but not caught on film.

At dinner that evening we were joined by the instructors and their wives and the conversation was very pleasant. Each of them went on about experiences that would make your hair stand on end and we got to know our instructors better. They are among the best pilots in France, most having their three Diamonds.

Friday the weather was fine and the flying was good all day. Almost everyone was let go solo, sometimes to be called back to the field by the instructor as they continued to show us some tricks; several entries to spins and down wind landings. On one occasion going up an incline so steep a jeep following the glider spun its wheels - it was quite impressive! You touch down at 140/km/h, rounding out sharply and rolling as little as 20 feet. You look for the brake quickly to avoid rolling backward.

Saturday was a free day but there was some flying to make up for the flights lost due to the bad weather. Several of us slept in but those who hadn't been pleasant to the instructors were there early. Finally everyone was there and we flew until evening. At dinner we said our good-byes as our departure from Montagne Noir was set for the next day.

Sunday morning there was a summit meeting to discuss the flying accounts. Mr. Hersen told us that there was a change in the cost structure. We were to pay the first three hours, the Centre de la Montagne Noir the next two and OFQJ the last three after which we would fly at our own expense. But this system was reversed so that those who had flown less than five hours managed it without expense. This was the case of the majority and Walter and Pierre Lavoie who flew the most found the additional hours expensive but on the whole it was not so bad. Sunday afternoon we visited the City of Carcassonne with its magnificent medieval buildings in an impeccable state of preservation. It was very warm and the weather was finally magnificent as that day we didn't fly.

Sunday overnight we returned by train to Paris and this time we stayed at the Foyer International d'Accueil de Paris. With five to a room it's something else. The rooms were large; two showers, three wash basins and a toilet. The FIAP is located on rue Canabis ... pardon, rue Cabanis in the XIV district. Monday afternoon under a radiant sky loaded with cumulus we went to visit the Air Museum at Meudon. In it we found all kinds of antiques which scarcely got off the ground as well as some of the first real aeroplanes, some replicas but often the original machines. There were also old balloons, the first parachutes, some planes from World War I and we found some more recent ones dating from 1938 and 1939, the first plane to cross the South Atlantic and the Andes. As it was very hot we stopped for a drink before returning to Paris. Omer forgot his bag with his passport and all of his papers and didn't notice it until after we arrived back in Paris. He took all

evening to recover it but happily the incident ended well.

Tuesday morning we left for the Aeroclub de Bailleau where we were met by Mr. Juillot, Director of the French Gliding Federation. He gave us many details of the gliding activities in France, the number of pilots, the number of gliders, towplanes, pilot and instructor training, repair shops, certification, the French World Championships team, club finances and insurance. It was an interesting lecture which gave us an insight into the functions of the Federation.

After lunch the program was for us to participate in the club's activities. About one o'clock there was a storm and we had to content ourselves with a visit to the hangars and the repair shops where we saw an LS-1 being repaired. But the chief attraction was a visit to the hangars. Everything was white inside! Janus, Nimbus II, Cirrus, LS-1, Libelle, Club Libelle; all fibreglass except a Pilatus B-4. The CFI shared his philosophy with us; in a short time they will have only fibreglass gliders. They will get rid of all the wood and metal gliders, train the pilots on two seater fibreglass ships and buy only fibreglass. We recognized several advantages in France that we do not have in Quebec, like towing provided, hangars provided, clubhouse equipment provided, part of the gas provided, subsidies toward the purchase of gliders and their equipment, repair shops, etc. Once again the "Kodak Kids" went into action and Gilles made several of the best of his 350 photos of the trip.

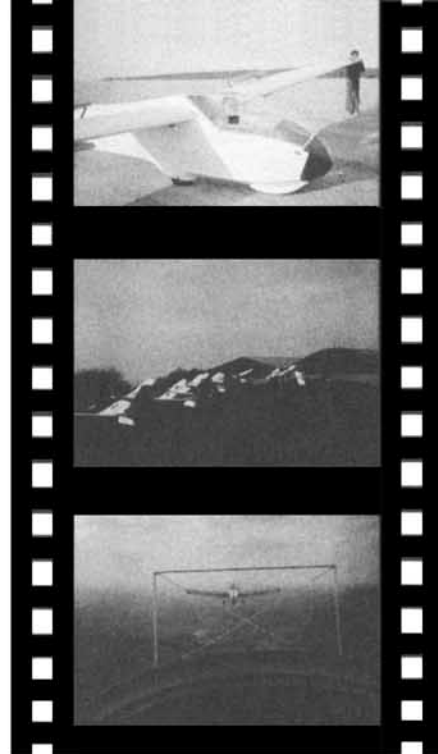
The CFI invited anyone who wished to make a 150 km flight in the Janus, Paul Gosseling of the Sherbrooke club and Andre Gareau eagerly accepted for the next day.

Wednesday morning we left for Cherence where Lulu the cook awaited us impatiently. After lunch, Christian the CFI allocated aircraft according to our qualifications. The pilots who had not checked out the previous Saturday flew. Omer who we hadn't seen for an hour was off in the Ka-6, Pierre Lavoie in the Squalo, Walter in the LS-1, Alex in the Libelle, Gilles and I in ASW-15s and everyone flew to suit himself. After the rather strict procedure at

Montagne Noir owing to the field location; here we were in flat country and the procedures were ones we knew and all the pilots unbound. Later the Janus appeared several metres above the ground at 250 km/h with a landing following a large 360. What a beat up! It was Andre Gareau and the CFI from Bailleau arriving from their 150 km cross country flight. Andre and Paul arrived at Cherence and took off in a Rallye to go to Bailleau about 50 km away. Andre had made his 150 km flight and now it was Paul's turn. The instructor returned alone to Bailleau and the plane returned to take Paul there. Such organization, it was magnificent. On Wednesday evening we were all smiling; several of us returned to Paris and others slept at the field to be ready to take off early next morning. The next morning it rained all over France. Those in Paris strolled about and those in Cherence .. I wasn't there! Friday it was fine and we were at Cherence again. The aircraft were assigned and we were off. The weather was not extraordinary but we succeeded in staying up while on the radio we heard some pilots discuss who would make their 300 km. Later all the gliders returned and we went to a barbecue where we met some of the members of the group that visited Quebec in 1975. There were also some Germans who had arrived for a competition which was to take place on Saturday and Sunday. It was a most agreeable evening, very wet and we returned light hearted to Paris.

We were in good spirits but a little sad for the trip was coming to an end and flying was finished for us because of the competition. One who won't forget his stay at Cherence is Jean Provencher who made his first solo there! He went up with the CFI who gave him an OK after two flights, one of which was a "return to ground" procedure used in France. This is where the glider is unable to release. It is a question of descending in the low tow position keeping the tow rope tight with the airbrakes and holding position behind the towplane. The tow rope is slackened at touchdown. Jean then took off in the Ka-8 single seater which he landed capably in spite of the presence of a flock of sheep.

Saturday was a free day with fine weather



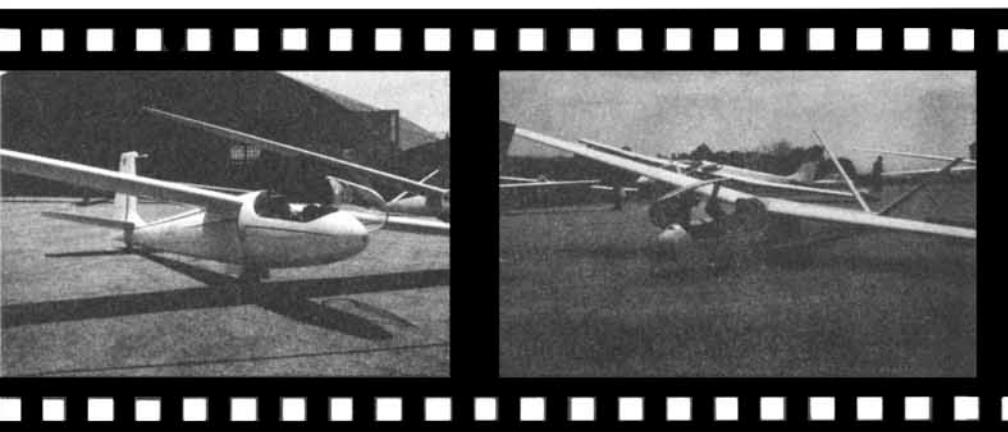
and hot in Paris. At five or six we decided to go to see "Deep Throat", a well known pornographic film banned in Canada. There we were surprised to see two other pilots from the group who were not aware of our presence. We met later at the theatre exit and we all had a good laugh. As we were already going to see the girls of Pigalle, we sat at a pub near the theatre and watched the girls of Sebastopol Boulevard!

Sunday we were on our own until Monday morning about three-thirty when several clowns decided that the departure was close and they should live it up! Of the fourteen remaining of the original group a dozen were in a pub but our "President" and one other were too sleepy at four in the morning to enjoy the last moments of this memorable trip. Happily the next morning was free and later that afternoon there was a last session with Mr. Beaugier of OFQJ who was Treasurer. We paid our accounts and the trip drew to an end.

Omer made reservations at the "Le Dareau" for a farewell dinner. It was in that cheerful atmosphere that we thanked our tour counsellor Didier and our "President" Alex whose dedication made the training course as pleasant as possible, we were all very grateful to them.

Tuesday the return trip in a 747 was uneventful and very smooth. We arrived at Mirabel about 2 p.m. where the group broke up.

There are several essential comments to make about this epic trip by this group of Quebec pilots who returned to the "old Country" to try our favourite sport there. A marvellous holiday, the reception was very warm and I remember it with a feeling of nostalgia. Together we have proved that glider pilots of the world make a great family which knows no boundaries and in which there is one goal; always to fly higher and farther, without a noisy engine to break the exquisite charm of the landscape which unfolds beneath our wings.



Notes from the President

From time to time I'll take up some valuable Freeflight space and try to pass on information or explain some of our problems. Right now, SAC's main problem is money, so I'll take this opportunity to explain where the SAC funds come from and what SAC does with the green stuff. Too many of our members seem to think that the money shown on the bottom of the annual report is SAC money spent at the discretion of the directors. It just isn't that easy.

SAC has three major, and not always steady, sources of "income": insurance premiums, government grants and membership dues. Let's take the easy one first, and it's also the largest amount, the insurance premiums. SAC merely acts as the collection point for the premiums and all the money collected is sent on to the insurance companies. The SAC directors have no discretion in the expenditure. In fact, this has become a problem to SAC because it uses up a lot of clerical time, causes mailing and other routine business expenses and produces no revenue. More on that later.

Government grants are our second largest source of "income", but again, the SAC directors have little, if any, discretion in the expenditure of the money. Under the government rules only certain specific activities of sports governing bodies such as the SAC are subsidized. Each subsidy is applied separately, must be spent for that specific purpose, accounted for separately, and any unused balance must be returned to the government. We have no choice in how the money is spent. For instance, if government policy states that travel to worldwide sports events can be subsidized, but purchase of equipment cannot, we could get money to buy plane tickets for our team to attend the World Championship, but we could not get a subsidy to buy a training glider. We might as well send someone to the World Contest, otherwise that money will go to some other sport to attend another international event. Your directors therefore will encourage the membership to participate in as many government-subsidized events as possible, since their cost is shared by all taxpayers, and does not come out of SAC membership dues. Whether you like the system is really your own political choice, all we can do is work within the existing framework.

Membership Dues are the only source of income over which the directors have any real control. Unfortunately it is also the smallest portion of our total revenue. Almost all of it goes into the operation of the secretary-treasurers "office" and the production of the Free Flight magazine. The cost of the secretary-treasurers office is kept below any normal minimum by Terry Tucker's extraordinary devotion to

soaring and her consequent willingness to do a full-time job for part-time pay. The cost of Free Flight is kept below normal by Bob Nancarrow's extraordinary devotion to the job and his ability to scrounge, beg and borrow services below cost. I personally do not feel that is fair for the rest of us to scrimp on dues payments and expect these two, and a few others to subsidize our "fugality".

It's a fair question to ask what SAC does for its members besides the group insurance plan and Free Flight. How expensive would it be to get type approval for new aircraft if dedicated fellow SAC members did not contribute their time and skills? Expensive enough to prevent the importation of most of the aircraft we are now flying. How many airspace restrictions would we be subjected to if it were not for the representations of SAC? We don't know, but would you want to find out? Who trained the instructor who taught you how to fly? One could come up with a lengthy list, but I'm sure you get the idea. We tend to take the SAC benefits for granted because we have enjoyed them for so long.

Now the well has gone dry again. Our income from membership dues is no longer sufficient to cover the cost of even minimal services. There has been a considerable increase in clerical overhead costs because of the insurance plan. One, but not the only, reason for our low premiums is the fact that SAC is doing a great deal of the administrative work on this plan. After April 1978 we will ask the insurers to include a factor for these costs in the premium, and to pass that money on to SAC. Unfortunately, this does not relieve the current financial pressure. Your directors have therefore decided to retain approximately \$2500 of the 1976/77 premium refund and to ask the three clubs who do not share this refund to make a proportionate special contribution to SAC. We do not have the exact refund figures at this time (April) but this action by SAC should not cost an individual member more than about \$1.50 and I trust that you will agree that this is a reasonable way to avoid financial disaster. If you have any other or better ideas, let's hear from you. And good soaring in the meantime!

Member Clubs

Maritime Zone

Bluenose Soaring Club, 6360 Summit St., Halifax, N.S.
Lahr Gliding Club, % Capt. W. J. Oke, 489 Sqdn., CFPO 5056, Belleville, Ont. K0K 3R0
New Brunswick Soaring Association, 521 Blythwood Ave., Riverview, N.B. E1B 2H3
Newfoundland Soaring Society, %Mr. J.J. Williams, 11 Nungesser Ave., Gander, Nfld. A1V 1M1

Quebec Zone

Appalachien Soaring Club, Box 271, Sherbrooke, P.Q. G1H 4G8
Ariadne Soaring Inc., 735 Riviere aux Pins, Boucherville, P.Q. J4B 3A8
Buckingham Gliding Club, % D. Finn, 573 Riverdale Ave., Ottawa, Ont. K1S 1S3
Champlain Soaring Association, 111 Mgr. Tache, Boucherville, P.Q. J4B 2K2
Montreal Soaring Council, Box 1082, Montreal, P.Q. H4L 4W6
Missisquoi Soaring Association, Box 189, Mansonville, P.Q. J0E 1X0
Quebec Soaring Club, Box 9276, Ste. Foy, P.Q. G1V 4B1

Ontario Zone

Air Cadet League (Ont.), Mr. H. Bruhman, 1107 Avenue Rd., Toronto, Ont. M5N 2E4
Air Sailing Club, Box 2, Etobicoke, Ont. M9C 4V2
Base Borden Soaring Group, Box 247, Borden, Ont. L0M 7C0
Bonnehocher Soaring Inc., Box 1081, Deep River, Ont. K0J 1P0
Central Ontario Soaring Association, Box 762, Peterborough, Ont.
Chatham Air Cadet Gliding Club, 561 Lacroix St., Chatham, Ont. N7M 2X1
Erin Soaring Society, Box 523, Erin, Ont. N0B 1T0
Gatineau Gliding Club, Box 883, Station B, Ottawa, Ont. K1P 5P9
Huronia Soaring Association, c/o M. Badior, 435 Hugel Ave., Midland, Ont. L4R 1V4
Kawartha Soaring Club, Inc., P.O. Box 168, Omeme, Ontario K0L 2W0
Lakehead Gliding Club, Box 161, Station F, Thunder Bay, Ont.
London Soaring Society, Box 773, Station B, London, Ont. N6A 4Y8
Rideau Gliding Club, c/o H. Janzen, 172 College St., Kingston, Ont. K7L 4L8
Rideau Valley Soaring School, Box 93, R.R. No. 1, Kars, Ont. K0A 2E0
SOSA Gliding Club, Box 654, Station Q, Toronto, Ont. M4T 2N5
Toronto Soaring Club, Box 856, Station F, Toronto, Ont. M4Y 2N7
Windsor Gliding Club, 2050 St. Anne St., Windsor, Ont. N8N 1V7
York Soaring Association, Box 660, Station Q, Toronto, Ont. M4T 2N5

Prairie Zone

Alsask Soaring Club, CFS Alsask, Alsask, Saskatchewan S0L 0A0
Red River Soaring Association, Box 1074, Winnipeg, Man. R3C 2X4
Saskatoon Soaring Club, 2 Sullivan Street, Saskatoon, Saskatchewan S7H 3G8
Winnipeg Gliding Club, Box 1255, Winnipeg, Man. R3C 2Y4

Alberta Zone

Cold Lake Soaring Club, Box 1714, Medley, Alta. T0A 2M0
Cu-Nim Gliding Club, Box 2275, M.P.O. Calgary, Alta. T2P 2M6
Edmonton Soaring Club, Box 472, Edmonton, Alta. T5J 2K1
Red Deer Soaring Association, Box 873, Red Deer, Alta.
Regina Gliding & Soaring Club, % 7215 Bowman Ave., Regina, Sask.
Southern Alberta Gliding Association, Box 394, Station J, Calgary, Alberta T2A 4X7

Pacific Zone

Alberni Valley Soaring Association, Box 201, Port Alberni, B.C. V9Y 7M7
Okanagan Soaring Association, Box 1135, Kelowna, B.C. V1Y 7P8
Vancouver Soaring Association, Box 3651, Vancouver, B.C. V6B 1Z1
Wide Sky Flying Club, Box 6931, Fort St. John, B.C. V1J 4J3

Located adjacent to the Downsview Airport in Toronto is the Defence and Civil Institute of Environmental Medicine. This is one of a group of Department of National Defence laboratories for research and development of "man/machine" systems.

While this is a military establishment primarily serving the needs of the Canadian Forces; it also does work for non-military branches of government and for industry.

One area of interest for glider pilots thinking of wave flying is the "High Altitude Indoctrination Course" conducted by the School of Operational and Aerospace Medicine. This is the only facility in Canada with a high altitude pressure chamber for training available to non-military pilots.

The course requires a day and a half with lectures and a period in the pressure chamber for experience at simulated high altitudes. The cost of the course is \$15. The course director, Major J. Soutendam warns that the facilities are often booked in advance for military test programs so that there may be a waiting period to arrange for the course. If there is a group at your club interested in the program, write for information to: Major J. Soutendam, D.C.I.E.M., P.O. Box 2000, Downsview, Ontario M3M 3B9

Abbotsford Sport Parachute Centre is now under the management of Horizon Aero Sports of Vancouver. If you are looking for information about parachutes (or hang gliding) contact Rod Bishop or Gerry Harper at Horizon Aero Sports.

HIGHLIGHTS OF CIVV MEETING

Twenty countries were represented at the CIVV meeting in Paris March 24 and 25. The total number of entrants for the 1978 World Championships will be 100 with a maximum of 50 in each class. In the event of over subscription, the number per country may be reduced or entrants may be required to fly in another class. There will be no more classification or prize for 19 m span gliders. The distance task will no longer be obligatory. Relights after an outlanding will not be allowed. The maximum permissible weight will have to be specified in either the C of A or Permit to Fly. Checks on gross weight will be made on a random basis by the organizers. Barographs will be required on all flights and cloud flying will be prohibited.

The First European Club Class Contest will be held in June 1979 in Sweden. The First European Motor Glider Championships will be at Burg Feuerstein in 1978.

The next World Championships following Chateauroux, France in 1978 will be held in 1981 in order to avoid conflict with Olympic fund raising in 1980.

Mr. L. A. de Lange, long time President of O.S.T.I.V. was nominated for the Lilienthal Medal for 1976.

Agreement was reached on the 1000 km Badge. Each holder will receive a special FAI Diploma and flights of over 1000 km will be published each year in the FAI Yearly Bulletin.

PILATUS PRODUCES FURTHER B-4

Stans, March 1, 1977 - Following the great success of the B-4 in 1976, production of this Sailplane will be 80 units during this year. Today over 250 B-4 are in service worldwide.

The B-4 PC-11AF, all metal, single seater, high performance, fully aerobatic glider is produced by the Pilatus Aircraft Ltd. in Switzerland. Pilatus is not only known for its high quality B-4, but also builds the most successful STOL-Airplane, the Pilatus PC-6 Turbo Porter, aptly named "Jeep of the Air". Its newest product, the PC-7 Turbo Trainer, is finding acclaim worldwide and will meet the training requirements of the future based on operational proven technology. Pilatus, a member of the Oerlikon-Buehrle Group, is today synonymous for Swiss precision and quality in the aerospace industry.

With its advanced design, its robust construction, and outstanding cost-effectiveness the Pilatus B-4 PC-11AF has become number one in its class. The great success of the B-4 in the soaring world is attributable to its excellent flight characteristics, high stability and ease of maintenance. The well known multipurpose characteristics make it perfectly suited for:

- primary training
- advanced training
- high performance flying
- cross country flying
- aerobatics and competition flying

HANGAR

FREE FLIGHT PRINTING

This is the first issue for several years that has been printed by the National Sport and Recreation Centre rather than a commercial printer. We hope that the Sport Centre will be able to help us maintain and improve the quality of FREE FLIGHT and at the same time save us some money and some time in getting the magazine to the members.

Pilots are reminded to report their flights for the 1977 trophy awards.

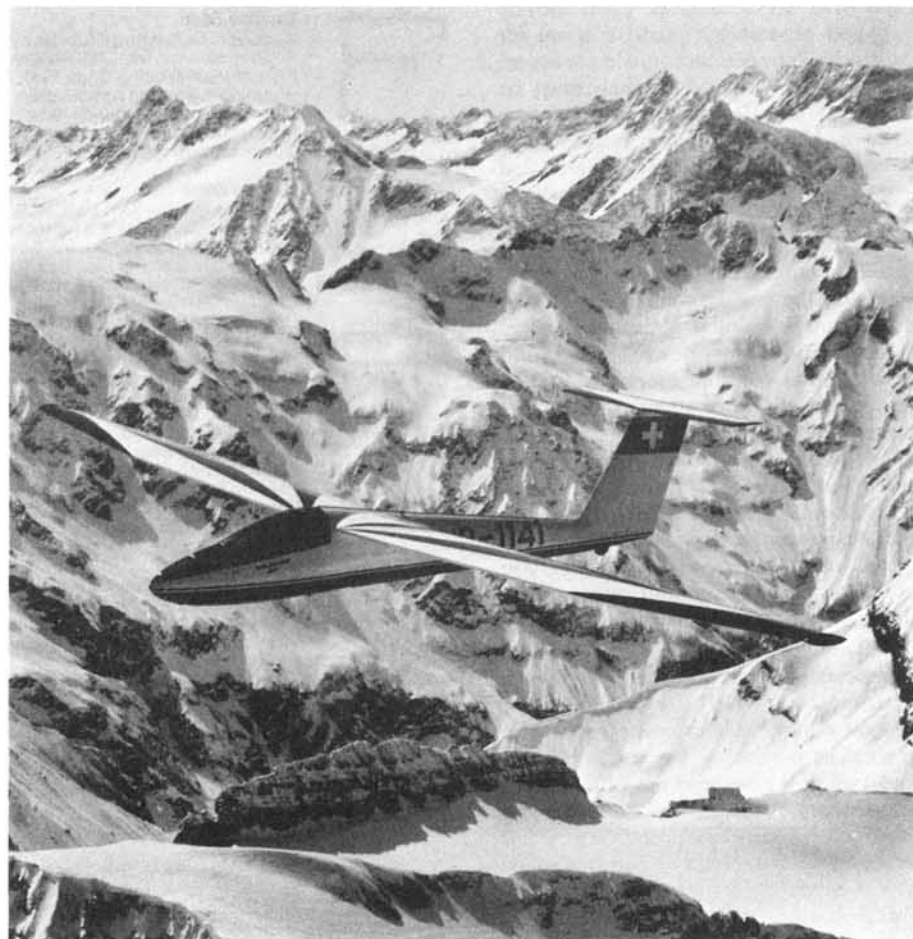
The BAIC Trophy is for the best flight of the year, the Canadair Trophy is for the five best flights of the year and the "200" Trophy is for the five best flights by a pilot who had logged less than 200 hours total gliding time at the start of the season.

Here is how the scoring works:

1. Altitude gain - 1.00 points / 50 m
2. Free Distance - 1.00 points / km
3. Prescribed area distance - 1.00 points / km
4. Distance to goal - 1.25 points / km
5. Triangle - 1.50 points / km
6. Out and Return - 1.50 points / km
7. Incomplete triangle or out and return:
Distance to turn points reached - 1.25 points / km
Distance after last turn point - 1.00 / km

All flights are to originate in Canada.

All goals and turn points must be declared prior to take-off.



FLYING

Turn points for the prescribed area distance task must be declared before take-off but may be visited and revisited in any order subject to the requirement that consecutive turn points shall not be less than 50 km apart.

Evidence of take-off, landing, turn points and height gains shall comply with F.A.I. rules.

Only height gains require barograms.

Send flight claims to Tony Sawatsky, Box 137, Pinawa, Manitoba, R0E 1A0.

It is recommended that each club appoint a member to receive and approve flight claims and submit the best claims for consideration at the end of the season.

The MOT describes an accident where the pilot of a Libelle H301 was killed:

"After a premature cable release at 200 feet during a winch launch, the pilot attempted to fly a circuit. The glider stalled in a turn and crashed. Investigation revealed that the cable ring was not compatible with the type of release installed in the glider."

SAC was not involved in the accident investigation; so we cannot comment on the accuracy of the report. However it does justify our stressing once again the importance of using correct towing hardware and ensuring that it is in good condition. Most European imports are fitted with excellent Tost releases - which fail to be

excellent if incorrect rings are used. With inflation and variations in exchange rates the correct rings are now about \$4 a pair which is certainly more expensive than a couple of links of commercial chain. Looking at things in correct perspective shows that it is cheap compared with most aeronautical equipment - particularly when it may save your life!

NATIONAL SOARING CONTEST - JULY 19 TO 28 - HAWKESBURY, ONTARIO

It's not too late to get your entry in! Fee is \$75. or \$65. if received before June 30th. Send applications or address any questions to: George W. Couser, 735 Riviere aux Pins, Boucherville, Quebec, J4B 3A8.

NOTICE OF RECORD CLAIM

300 km Out and Return Speed - single place, Citizens category (F.A.I. Sec. 4.6.8)
Pilot: Denes Pandur
Sailplane: Schweizer 1-35 C - CWTI
Flight: April 13th, 1977
305 km Out and Return from Estrella, Arizona

Speed Claimed: 85.6 km/hr

This is the first claim in this record category, and is subject to verification.

PAUL TINGSKOU MEMORIAL TROPHY

Following the sad death of Paul Tingskou in 1976, Winnipeg Gliding Club decided to institute a new trophy in his memory, to be known as the Paul Tingskou Memorial Trophy. It is to be awarded to the "Club Champion", as determined by points scored for his five best flights of the year.

The motif surmounting the trophy is an accurate representation of an airfoil which had been custom designed by Dr. Eppler for an advanced high performance 15 metre flying wing sailplane which Paul had designed over a period of years, and was about to begin building at the time of his death. Paul had already built six gliders in his lifetime, including the "Viking", the first fibreglass sailplane in Canada, which pre-dated the rush of glass ships into North America. Unfortunately for us, the Viking was never put into production; its time had not yet come.

Paul was known to many pilots across Canada for his contributions to soaring in this country, through contests, for his infectious enthusiasm, and generosity with time, advice and assistance in any aspect of gliding.

The first winner of this new trophy was Dave Tustin, who also won the S.A.C. Canadair Trophy, awarded for the same five flights. Dave was presented with the trophy at Winnipeg Gliding Club's recent Spring Banquet.

Russ Flint



The Pilatus B-4

- Sailplane single seater
- All metal standard class (15 meters)
- High performance (L/D 35:1 at 53 mph)
- Aerobatic
- A pleasure to fly
- Ideal for club and private use
- Competitive price
- Short delivery (monthly production: 12 units)
- Canadian type cert. No. G-96
- Demonstrator available for test flight (mid April / mid Nov.)

Made by
PILATUS AIRCRAFT LTD.
Stans - Switzerland,
Builders of World renown STOL
"PILATUS PORTER"

OFFICIAL AGENT FOR
CANADA
PIERRE ROCHETTE
C.P. 1543 Terminus, Quebec
G1K 7H6
Tel: 418-529-4164 Office
Tel: 418-651-2939 Residence

Club News

Quebec Soaring Club

Last year an unusually warm spring allowed us to begin the season by the end of April, instead of the customary early May. Thus the spring sunshine promised a good season, but alas, this was not to be. In 1976 our flying activity was down considerably over the previous season due to a cool and wet summer that followed - the number of flights dropped almost 30% to 1788 with an unlucky 13 Saturdays and Sundays completely washed out.

A group of 11 club members were fortunate to escape the cold rains of May by taking part in a 3-week exchange in France organized by the Office Franco-Québécois pour la Jeunesse.

The rest of the season at St-Raymond was nothing to talk about, offering few chances for cross-country flying. However, our September or October Baie St Paul wave camp 60 miles NE of Quebec City somewhat made up for the previous mediocre months. Baie St Paul offers all possible forms of soaring flight: thermals, sea breeze front, ridge, and of course wave (are there other forms of lift?). Silver C five hour flights are not attempts here, they're a sure thing - imagine having completed 5 hours by noon! The highlights were a flight to 18,500 ft., a flight with a low point of 700 ft. ASL to 15,000 ft., a 6 hour flight at the end of October, and 22 flights in the club Blankik in one day!

The early spring could only mean an impatient winter; the snows of October called an end to our season by a white Quebec of early November.

Alberni Valley Soaring Association

We are a small club that occasionally ventures from our fortress on the west coast to lend a little class to the annual Cowley summer camp, in fact it was because of the superb flying of our tow pilots that the government decided to build the 5000' strip at Pincher Creek that is close enough to Cowley for them.

We have about 15 members flying a 2-33 towed by a venerable L-5 and a winch; not at the same time. We are running a ground school through the local night school system which has attracted nine prospective students.

Most local flying is done in thermals, although big John P. an expatriot from Edmonton has been threatening occasionally to introduce us to wave soaring.

Visitors are most welcome, we fly on winch two or three nights a week and aerotow on Sundays; Saturdays you take what you can get.



L. to R. A. Krieger, O. Martin, G. Boily, M. Laviolette & Daughter, W. Pille.

Wave at Baie St-Paul
October 1976



Dave Clark, CFI and student pilot Jane Nikle prepare for inaugural launch of the new Alberta soaring club appropriately named S.A.G.A. (Southern Alberta Gliding Association). The club began operations February 13th and as you can see the reports of a snow-free winter in the west does not apply to Penhold. The club began operations with the Blanik and a Romanian M2 motorglider is scheduled to arrive shortly.



Club News

Missisquoi Soaring Association

Located in the lee of the Sutton Mountains approximately 2 miles north of the Vermont border at Mansonville-Highwater, P.Q. Flying operations are conducted from a 3000' paved 575' MSL airfield owned by the Mansonville Flying Club. Association equipment consists of a towplane, Bergfalke II and a Schweizer 1-23. On site are also four private and/or syndicate owned sailplanes.

Whereas the majority of groups appear to have suffered from the vagaries of last summer's weather, our mountainous location with a low MSL field enabled our equipment to keep flying. Post frontal conditions generate wave with entry into primary over the field or within four miles. When others were grounded by poor weather and no lift, we were often flying wave in a 20 x 3 mile window. If the wind velocity is high enough, but conditions do not generate wave, we have several ridges within reasonable launch and easy return of field.

Ridge and wave flying is possible with winds from S. E. to N. offering us a large number of options under various conditions. A lack of proper equipment has restricted flights to Gold heights with lift still present at termination of climb. The best wave conditions are early spring and late fall. Wave during summer is generally weaker and close in to individual segments in the mountain chain.

We are presently recovering our Bergfalke and looking forward to our 77 flying season, beginning probably the last week of March or the first week of April.

Anyone interest in visiting our site, 90 miles S. E. of Montreal, should write to Box 189, Mansonville, Brome Co., P.Q. JOE 1X0.

Montreal Soaring Council

The soggianness of last season produced the lowest number of flights recorded by MSC in the past five years. But there were some good days. Hans Baeggli made 440 km around a 500 km triangle in the Nimbus while Eric Newsome fell short on a Diamond Goal Triangle by 4 miles in a K-6E but managed to scrape a Gold Distance leg from the ashes.

Bob Gairns, George Adams, Jim Henry and Gunther Geyer-Doersch all made Diamond Gains in the Mount Washington wave late in October - after the rest of us had given up on our annual wave camp at Lake Placid.

Most winter activity has been put into making finishing touches to the third phase of a financial plan designed to allow for planned acquisition and replacement of

aircraft from income. The first sign of the plan in operation came with the arrival of a new Astir C5 shortly after Christmas. All we need now is sunshine and visible grass!

With an Astir and an LS-1 in the club fleet we have considerable cross-country potential and our push for the coming season is to extend the training scheme to encourage and assist pilots up to the Gold C stage.

The Nationals will be held at Hawkesbury July 19 - 28 and we extend a cordial invitation to all to come and fly with us.

Bluenose Soaring Club

The Bluenose Soaring Club has completed its first soaring season. An early spring membership drive added over a dozen new people to the lists; the membership now totals 28. Another such effort will be conducted in '77, starting with the display of one of the club members' Blanik at the Halifax Yacht and Boat Show.

We had an active flying tempo at our Stanley site, although towplane availability proved a problem. Soaring weeks were held in early June and late August to provide concentrated instruction to students, and extended flying to the more experienced pilots. Several students soloed successfully during these weeks.

The club logged 149 hours in 421 flights in the Ka-7 and Blanik. Good soaring conditions appeared frequently with numerous flights to 5000' and 6100' our best altitude gain. On many days students found it hard to get back within the 1/2 hour limit as the instructors seemed to gleefully forget the takeoff times.

Throughout the season, instructors Ralph Olive and George Graham withstood the pressures of student instruction, and the towpilots, Debbie Burleson especially, put in lots of hours behind the throttle.

It is expected that the frustrations resulting from the sometimes irregular availability of towplane and/or tow-pilots in '76 will be greatly reduced during '77 with the operation of a double drum winch. It is intended that this machine, with its launching efficiency on our 5000/3000/3000 ft. "winchways", will greatly increase Bluenose Soaring's activity in the sky.

About The Huronia Soaring Tribe

All Canadians know of the Huron Indian Nation and of their contributions to our great heritage. It was through them and the Jesuit Brothers who came from France that the Red Man and the White Man first came to truly peaceful co-existence in North America. This happened back in 1639

at a place called Ste. Marie on the very outskirts of the present day town of Midland, Ontario. Midland is on Georgian Bay of the Great Lake Huron.

The Jesuits diligently and feverently converted the Huron Indians to Christianity. The Hurons, fundamentally a peace-loving people, were easily sold on the love-thy-neighbour concept of the Christian religion. Most became Roman Catholics within the ten years that Ste. Marie existed. The Iroquois wiped it out in 1649.

However, there was one Tribe of the Huron Nation who would not be swayed by the monks. These fellows, the Huronias, refused to forsake their old god, Soar. Soar was a kind of sun god, but to the Huronias he had a larger meaning than your run-of-the-mill sun god. He endowed his True Believers, his disciples, with special powers. His gift to them was the power to come closer to Soar himself. Soar so loved the birds that he bestowed upon almost all of them this attribute.

While most of the Huron Nations took to praying, the small Huronia Tribe continued soaring. This was especially noticeable on the seventh day of the week.

One of the saddest facts of Canadian history is that over the past three centuries the huge Huron Nation has been almost completely obliterated (through intermarriage with whites, but mostly through slaughter at the hands of the infamous Iroquois). Today there are less than 150 full-blooded descendants of the Huron Nation. Of course the Huronia Tribe has long since been extinct.

But take heart ... if you believe in reincarnation as those of the modern Huronia Soaring Tribe do.

In 1973 a small group of Believers got together and tumbled to the fact that Soar had in his majestic wisdom decided that the Huronias be reincarnated.

It was to the mighty Chieftain, Chief-Flying-In-To (C.F.I.) that Soar sent out his decree via a dream. Chief-Flying-In-To gathered some disciples and told them of his vision. All were inspired by the enthusiasm and the obvious endowments of Chief-Flying-In-To. For not only was he the closest ever to come to Soar, but he was also what is known among the Huronias as a Powerful Flyer and at this he was unmistakably the best.

A Powerful Flyer is one who has the ability to climb up to Soar without the assistance of another Powerful Flyer.

The four years that brought us to today have sped by and many things have happened to the Huronia Soaring Tribe.

They now have four of the big modern birds (all with true Indian names). The Powerful Bird called Citabria really belongs to Chief-Flying-In-To. Baby Grunau belongs to a Huronia Brave called Baby-Go-Urge (so named after his Grunau and his eagerness to fly). The other two Powerful Birds are Schweizers 123 and 222.

Including all the Chiefs and all the In-

Club News

dians, the new Huronia Soaring Tribe numbers 18 virile Braves. Unfortunately, without a single Squaw in the Tribe, its continued existence and flourishing is dependant - at least for the present - on Soar's powers of reincarnation.

I forget who it was who said "What's in a name ..." but he was dead wrong. For the new disciples of Soar soon discovered that by searching for old Huronia names amongst their friends and acquaintances they could soon convince those Braves that they were indeed themselves reincarnated Huronians.

Let me give you some examples by telling you about some of the members of the Tribe. I will give the loose English translations of their Huronia names and you will soon see how easily they have been able to find themselves.

The Tribe has five Powerful Flyers: Chief-Flying-In-To, Elm-Enemy, On-Sea-Flyer, Woodpecker and North-Wind. The first four are all qualified to assist Powerless Flyers in their quests to come closer to Soar.

The High Priest of each religion teaches

his most devout followers to become teachers also to that soon everyone will be praying.

So it has been with the Huronians. Chief-Flying-In-To has taught his best Braves to become teachers and now there are three who teach soaring to all the Braves. To other teachers are Very-Empty and Elm-Enemy. Soon to be ordained is Brave Eagle-Claws-In-Cold-Water.

The last named Brave is of special note since he resides in a town near the temple where most of the soaring is done, i.e. Coldwater, Ontario. The shrine is a field close to nature where some other creatures also go to perform their ceremonies. They jump out of Powerful Birds and fall to the earth under big umbrellas.

Each of the Braves of the Huronia Soaring Tribe has his special function or feature that is characterized by him name. For example, Calling Tom-Tom is the most safety conscious Brave. He calls the Tribe to order and beats the drum whenever acts of danger are about to be committed. As head witch doctor he has kept the Tribe extremely healthy throughout the

past season.

Very-Empty at first seems a misnomer for such a high-spirited and active Brave, however as keeper of the coffers he is often hear to report them as very empty.

The Chieftain gets his name from his many far-flung junkets and his propensity for flying into all sorts of interesting places such as cow pastures and meadows.

Gay-Hawk-Crew-Bear is a Brave who has the wings of an eagle. He is also a bear for punishment when it comes to ground crew work. He can probably dismantle and reassemble any one of the Powerless Birds more quickly and accurately than any of the Tribe.

Gay-Soar-Heavenly is one of the younger Braves, still learning to soar but at least has established his goal.

Elm-Enemy and Woodpecker are a couple of old Chiefs both of whom have a special disliking for the stand of trees next to final approach. Given half a chance Woodpecker would chop them down. Elm-Enemy is an international Powerful Flyer as well as a soaring enthusiast.

There is one Brave called Great-Vote. He has been seen aloft only rarely but his contributions to the Tribe have been well above average. Though he is not always on hand for soaring sessions, he never fails to attend and cast his vote at Tribal meetings.

The Huronia Soaring Tribe even has a schizophrenic Brave, On-Sea-Flyer. He is torn between sailing and soaring. One day the Tribe expects to see him piloting a sailboat in tow down the runway at Coldwater. Then all the other Braves will cheer, "On, you finally got it all together!" 'On' is also the Tribe's undisputed number one evangelist.

There are several others: West-Wind, so names because he has such fun coping with it on final; North-Wind, another old chief who will blow hot this summer; Play-Flyer who gets great fun from playing the flying game; Field-Deer who along with Calling-Tom-Tom has a special aversion to cattle grazing on the landing field; Quick-To-Please who is the newest Brave; and Heaven-Bent who seem almost always in that posture.

And then there is Clay-Pigeon. He is the Brave who recently achieved the dubious record of alighting after the fashion of just such a pigeon - not just once, but thrice on the same landing. He received special words of praise on that occasion from both Chief-Flying-In-To and from Calling-Tom-Tom.

As you can well imagine, the Huronia Soaring Tribe is a small close-knit family with a fairly high rate of participation per Brave. They are still a young Tribe. Some of the Braves have yet to soar solo, but most do now.

Their motto is: "The Tribe the Soars together, pours together." Huronia Soaring Association.

DIRECTORS & OFFICERS 1977

PRESIDENT	Mr. Al O. Schreiter, 3298 Lone Feather Crescent, Mississauga, Ont. L4Y 3G5	(416) 625-0400 H (416) 239-8171 B
VICE-PRESIDENT	Dr. Karl H. Doetsch, 1610 Apeldoorn Avenue, Ottawa, Ontario K2C 1V5	(613) 224-1470 H (613) 993-2110 B
PAST PRESIDENT	Mr. Terence R. Beasley, 173 Leslie Street, Dollard des Ormeaux, P.Q. H9A 1X2	(514) 684-7145 H (514) 744-1511 loc. 639 B
DIRECTOR — MARITIME ZONE	Mr. J. J. Williams, 11 Nungesser Avenue, Gander, Newfoundland A1V 1M1	
DIRECTOR — QUEBEC ZONE	Mr. Terence R. Beasley	
DIRECTOR — ONTARIO ZONE	Mr. Al O. Schreiter	
DIRECTOR — PRAIRIE ZONE	Dr. Russell H. Flint, 96 Harvard Avenue, Winnipeg, Manitoba R3M 0K4	(204) 284-5941 H
DIRECTOR — ALBERTA ZONE	Mr. Harry Byrt, 13808 - 85th Avenue, Edmonton, Alberta	
DIRECTOR — PACIFIC ZONE	Mrs. Christine Timm, 1461 Terrace Avenue, North Vancouver, B.C. V7R 1B5	(604) 980-5313 H (604) 731-4631 B
DIRECTOR AT LARGE	Dr. Karl H. Doetsch	
DIRECTOR AT LARGE	Mr. Paul Thompson, 25 Robin Hood Drive, Dundas, Ontario	(416) 627-5990 H (416) 385-6566 B
SECRETARY — TREASURER	Mrs. Terry Tucker, 786 Chapman Blvd., Ottawa, Ontario K1G 1T9	(613) 733-2165 H & B
F.A.I. AWARDS	Mr. Ray Wilson, Box 971, Kingston, Ontario K7L 4X8	(613) 546-6467 H (613) 544-6000 B
F.A.I. RECORDS	Dr. & Mrs. Russell Flint, 96 Harvard Avenue, Winnipeg, Manitoba R3M 0K4	(204) 284-5941 H
FREE FLIGHT EDITOR	Mr. Robert F. Nancarrow, 43 Sealcove Drive, Etobicoke, Ont. M9C 2C7	(416) 621-2276 H (416) 252-4656 B

Overseas News

Edited by Lloyd Bungey

British pilot claims World Altitude and Gain of Height Records.

The challenge of coping with the low pressures at heights above 50,000' has been met. On Tuesday March 29th, 1977 31 year old, Mike Field of Great Britain soared to a height of 15,803 metres (51,847') in a Skylark 4, flying from the Cairngorms Gliding Club site at Feshie Bridge in Scotland. Mike Field is also claiming the World gain of height record with a climb of 15,179 metres (49,800').

Mike Field had previously set a British altitude record of 42,815' in 1972, also in a Skylark 4, but was not satisfied with this. In challenging the World record, held for 15 years by American Paul Bickle, Mike had to find a means of overcoming the low pressure he would be flying into. As it stood, the World record had reached the limit for unpressurised flight. For his attempt on the record, he spent 3 years designing and building a pressure suit suitable for use in a glider.

The flight made on March 29th was not a lucky flight but the result of careful planning and preparation. The Daily Telegraph of London sponsored the flight which undoubtedly made things somewhat easier, at least financially.

For an hour before takeoff Mike was breathing pure oxygen. This was done in order to flush all the nitrogen out of his body since with decrease of pressure nitrogen will come out of solution and collect as gas bubbles primarily in the joints of the body causing decompression sickness, more commonly known as "bends".

The take-off from Feshie Bridge was accomplished by winch launch, following which altitude was gained in the foothills of the Cairngorms before he sought out the wave lift at a higher level. Within half an hour of takeoff Mike had reached a height of 25,000'. It was above this level that the real dangers of the flight lay. His pressure suit protected him from the low pressure but he still had to contend with temperatures in the region of minus 45 degrees celcius.

To protect himself from the extreme cold of the high altitude at which he would be flying Mike wore suitable clothing and used electric socks to protect his feet from frostbite. However, he was unable to protect his plane from some of the problems of icing. Having climbed to 51,850' he was now running low on oxygen but found that his dive brakes had frozen. In his own words "This meant I couldn't descend quickly."

"I flew faster and faster out of the rising



air, but only managed to descend to 40,000' and was faced with possible oxygen starvation."

"I took the aircraft into a spin but in the descent the elevator froze. I was at a very low altitude when I finally regained control. It was a close thing."

Mike Field has placed claims with the B.G.A. for two world records - Absolute altitude of 15,803 metres and gain of height of 15,179 metres.

NOTE -

We wish to acknowledge the assistance of the Daily Telegraph and the B.G.A. in supplying the information used in the above report.

OVERSEAS NEWS

There was an omission in the copy in the March/April issue, page 5 which changed the sense of the results of the Australian National Championships held at the New Year holiday period. To clarify the winners, here are the results again: "Open class was won by Malcolm Jinks, his ninth championship in this class. The 15 m unrestricted class was won by World Standard Class champion Ingo Renner in a PIK-20. Standard Class was won by Timm Knappstein".

EMERGENCY PARACHUTES BACK PACKS . SEAT PACKS NEW & USED

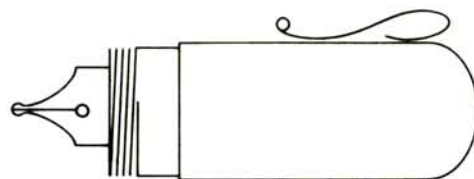
CERTIFIED RIGGING SERVICES FOR
PARACHUTE REPACKS & REPAIRS

Horizon
Aero Sports

1359 KINGSWAY
VANCOUVER, B.C.
V6V 3E3

876-2631
873-2727

Letters to the Editor



Dear Bob:

After reading the breakdown on the World Contest Fund in your Jan./Feb. issue of *Free Flight*, I feel obligated to explain why it looks as though SOSA only donated \$50.00 to the contest fund.

Apparently a further cheque for the fund was late in reaching you and did not get published in your report. The club donated over \$350.00 to the cause.

In the Glide for Canada promotion, of the four pilots who submitted donations, the top two were SOSA members (R. Saunders, C. Knowles). They contributed about 60% of the funds for that particular effort.

It doesn't look like the money collected for our team will come close to covering the actual cost, but we know every little bit helps. We at SOSA wish more success with the fund-raising efforts for future Canadian teams.

Paul J. Thompson

Dear Sir:

I am a member of the Soaring Association of Canada and of the Bluenose Soaring Club of Nova Scotia. Our club is nearing the final stages of construction of a glider winch launching system and are interested in any quantitative studies which have been done related to the optimization of the launch for height and safety. Specifically, we would like to learn of or investigate ourselves the precise control parameters such as glider velocity, cable tension, etc. required for optimal utilization of our system.

The only reprint that I have been able to locate is: J. V. Byrne, "Towards Optimization of Ground - Power to Glider Launch" which was presented at the Tenth OSTIV Congress, South Cerney, England, June 1965. This publication proved very helpful in computer simulations of our launch program. However, I am sure that somewhere studies have been done which treat this question in the context of a properly posed optimal control problem and that the results obtained would be very useful to us in our own operation. It would be greatly appreciated if you could forward to me references, names or lists of studies or publications of which you or perhaps others in our organization are aware of. Finally, if results of this nature are not available then we are very interested in pursuing this question in detail ourselves and in any event would like to collect and organize all the information on this question available to date. Any help you could give us in this matter would be much appreciated by everyone in the club.

John C. Clements

Anyone with suitable information on winch operation please write to J. C. Clements, c/o Department of Mathematics, Dalhousie University, Halifax, N.S.

Ed

Dear Robert:

I have been appointed to prepare a history of the Regina Gliding and Soaring Club for its coming Silver Anniversary in either 1978 or 1979, depending on whether time is calculated from the time of formal incorporation or not.

I would like to call on you for whatever information, either statistical or anecdotal, you might have on the Club since its inception. S.A.C. began at about the same time that the Regina Club began. Such a long association must have produced much correspondence and information over the years. May I call on you for the cooperation of your organization in helping us produce a document which will be worthy of our two groups.

We would like to record the events which took place in the other gliding organizations in Saskatchewan over the same period so that our history can be viewed in the context of the total Saskatchewan scene. We would, therefore, ask that whatever information you might be able to provide regarding all the other gliding activities in Saskatchewan would be sincerely appreciated.

Finally, we know that the inception of this Club was assisted by the people in your organization. May we ask that those people contact me with a view to incorporating their efforts on behalf of the Regina Club into this history.

Yours truly,

Mark R. Venier
Chief Tow Pilot
Regina Gliding and Soaring Club
3314 Parliament Ave.,
Regina, Saskatchewan, S4S 2M2

Will any former members of the Regina club or SAC executive please send any helpful information to Mark to assist him with the history of his club.

Ed

SOARING CALENDAR 1977

Let us know what contests or events are planned at your club, write to Gerry Nye, 6825A Wilderton Avenue, Montreal, H3S 2M3. See page 2 for publication deadlines for future issues.

July 2 - 8	SAC Western Instructors' School, Chipman, Alberta
July 4 - 10	Edmonton Soaring Club Training Camp, Chipman, Alberta
July 19 - 28	1977 National Soaring Championships, Hawkesbury, Ontario, hosted by Montreal Soaring Council
July 23 - August 1	5th Annual Cowley Summer Camp, Cowley, Alberta, Thermal, ridge and wave soaring on the eastern flanks of the Rocky Mountains; write the Alberta Soaring Council, Box 472, Edmonton, Alberta
July 25 - 29	1-26 Championships, York Soaring, Arthur, Ontario
July 30 - August 7	SOSA Mud Bowl Contest, Rockton, Ontario
Sept. 3 - 5	Edmonton Soaring Club Extravaganza. Cross Country, Spot Landing and Declared Flight Time Competition. Barbecue and family outing.
Oct. 8 - 10	Thanksgiving Wave Camp, Cowley, Alberta. Get your Diamonds in Canada. Fly the Canadian wave on the eastern flanks of the Rocky Mountains with the Alberta Soaring clubs. Write the Alberta Soaring Council, c/o Clarke Campbell, Box 472, Edmonton.

Notice to Advertisers

The advertising rate for any size advertisement is based on \$50.00 per page and applies to space only, camera-ready copy supplied by the advertiser.

Professional creative design and typesetting is available at a competitive price and estimates will be freely given if appropriate instructions, with the advertising copy, are submitted to the Editor well in advance of the publication date.

CLASS ADS

FOR SALE

Standard Libelle, serial no. 107, 495 T. T., a winner today even over higher priced new aircraft and at only a fraction of the cost. The most complete competition/recreation aircraft, easy to fly, does not spin, which you can fly now. The complete package consists of the most up-to-date instruments, radio, oxygen and a superb strong streamlined aluminum enclosed weatherproof trailer with torsion bar axle and electric brakes.

Julius Nagy
720 Conacher Drive,
Willowdale, Ontario,
M2M 3N6

(416) 225-9433 (H)
(416) 863-1822 (O)

FOR SALE

Schempp-Hirth SHK in excellent condition. Wings refinished 1976. Complete with instruments, radio, oxygen equipment and enclosed trailer. This ship is a real performer in weak conditions yet has similar penetration to a glass ship. Normally based in Vancouver, delivery could possibly be arranged to a distant purchaser.

Lloyd Bungey,
Port Mellon, B.C.
V0N 2S0

(604) 884-5341

FOR SALE

Libelle H 301 B, Canadian Registration, available after U.S. championships July 77.

Contact: A. Dumestre,
64110 Mazeres, France

FOR SALE

Ka-6CR in excellent condition, fresh C of A. Two variors (one Moore electric with audio), ASI, Altimeter, Mentor Radio, Oxygen, Trailer, factory made wing, tail and fuselage covers, Tail dolly, Tools, etc.

A. Heinemann
R.R. 1,
Gormley, Ontario
(416) 727-9566

FOR SALE

Schleicher AS-W15 never damaged, T. T. 310, complete with instruments and enclosed factory trailer.

T. Beyke
(416) 244-8855 after 6

FOR SALE

Dual glider, Rhonlerche II, manufactured by Schleicher, serial no. 108, overhauled by company in 1967, total hours since overhaul 272, registration C-FQHA, C of A valid until 16 June 1977.

Fred Becker,
Cold Lake Soaring Club,
Box 1714,
Medley, Alberta
T0A 2M0

(403) 594-4386 (H)
(403) 594-8129 (O)

FOR SALE

Schweizer 1-34B deluxe fuselage and wings filled, never damaged, T. T. 110, Serial No. 85, complete with instruments and trailer.

Walter Ross
(416) 459-3386 (H)
(416) 592-5027 (O)

FOR SALE

Genave Alpha 360 used only in World Contest, in new condition. 360 channels, low power consumption and 4 w of transmitter power, plus microphone for only \$700.

John Firth
542 Coronation Ave.,
Ottawa, Ontario
(613) 731-6997

FOR SALE

PIK-20B and factory trailer. Water ballast, carbon spar, Instruments, radio, oxygen, Braunschweig tube, C of A until Sept. 18/77. Below factory price.

A. Heinemann
(416) 727-9566

FOR SALE

Kestrel 19 with full instruments, radio and low profile fibreglass trailer. Contest ready, offers unlimited class performance at standard class price. Cool tinted canopy and excellent ventilation; large cockpit; in-flight adjustable seat and pedals for comfort; flaps, brakes and chute provide short landings for safety.

John Firth,
542 Coronation Ave.,
Ottawa, Ontario
(613) 731-6997

FOR SALE

Pirat SZD30, 33:1, large cockpit, aerobatic (Negative manoeuvres), excellent condition, painted in '76, fully instrumented, electric T & B, Oxygen, enclosed trailer, \$8900.

Paul Thompson,
25 Robinhood Drive,
Dundas, Ontario L9H 4G2
(416) 385-6566 or (416) 627-5990 evenings.

Cambridge Electric Variometer Systems

ANNOUNCE THE

INTEGRATOR

*for measuring true
average rate of climb:
the best way to set
your speed ring!*

CAI Vario 10kts/1000 fpm	\$210
AUDIO 22	115
SPEED DIRECTOR	260
TOTAL ENERGY PROBE socket & 25' of tubing	25
GUST FILTER	15
with ON/OFF tap & tees (for any T.E. system)	28
COMPLETE SYSTEM	590
or, less Speed Director	350
INTEGRATOR	210
NIX T.E. PROBE	not available
(after extensive testing we are not recommending this device.)	
SPECIAL 1 Speed Director only	230

Also in stock: Altimeter, 50,000' tested \$140; ASI Smith's 140kts, \$75; Turn & Slip, 12v. \$85; PZL ASI, WRS 250, 140kts, \$100; Airpath Compass, \$30.

These prices apply to our present stock only; a further fall in the Canadian \$ will force adjustment.

All CAMBRIDGE Instruments carry a two year warranty when bought in Canada - we will undertake work on other instruments only by special arrangement.

ALL ITEMS SHIPPED via PARCEL POST add \$7.50

Ontario Residents add 7% Sales Tax

Firmal Electronics

P.O. Box 8046,
Ottawa, Ontario K1G 3H8

CERTIFIED OXYGEN EQUIPMENT



A8A Regulator

MASKS

SK-6 mask, with tubing, flow-indicator, and connector; for use with A8A regulator \$13.50

SK-24901 mask, professional quality, with inhalation/exhalation valve, A13 type facepiece, tubing, flow-indicator, and connector; for use with A8A regulator \$49.50

Sierra 659 "Posifit" mask, with inhalation/exhalation valve, for use with A14A regulator; includes hose and MC 3 connector for H-2 bailout \$79.50



A14A Regulator

HIGH-PRESSURE CYLINDERS

Volume	Weight	Length	Diameter	Price
11 cu. ft.	7 lbs.	22 in.	3 1/2 in.	\$39.50
15 cu. ft.	9 lbs.	17 in.	5 1/4 in.	49.50
22 cu. ft.	12 lbs.	22 in.	5 1/4 in.	49.50
30 cu. ft.	15 lbs.	20 in.	6 3/4 in.	79.50
38 cu. ft.	18 lbs.	23 in.	6 3/4 in.	79.50
48 cu. ft.	23 lbs.	28 in.	6 3/4 in.	99.50
H-2 bailout cylinder and valve, complete				35.00

HIGH-PRESSURE REGULATORS

A8A	Continuous-flow, for use to 30,000 feet \$ 54.50
A14A	Diluter-demand pressure breathing, for use to 40,000 feet 89.50
A14A	With pressure gauge and flow indicator blinker 110.00

CONTINUOUS-FLOW SPECIAL

A8A regulator	\$ 54.50
22 cu. ft. cylinder	49.50
High-pressure line	22.50
SK-6 mask	13.50

List: \$140.00

Save \$20.50 with our package price of \$119.50

Add \$36.00 for optional SK 24901 mask.

Add \$15.50 for cylinder mount brackets, if required.

HIGH-ALTITUDE SPECIAL

A14A regulator, with gauge and blinker	\$110.00
Regulator outlet hose, with fittings	12.50
38 cu. ft. cylinder	79.50
High-pressure line	22.50
Sierra 659 Posifit mask	79.50
H-2 bailout, complete	35.00

List: \$339.00

Save \$49.50 with our package price of \$289.50

Add \$15.50 for cylinder mount brackets, if required.

MINI-PAK SPECIAL

Ideal as back-up for your primary system, or may be used for short climbs. Complete outfit includes A8A regulator, 7 cu. ft. cylinder, and SK-6 mask:

\$99.50

FOR THE FINEST IN NEW AND EX USAF OXYGEN EQUIPMENT CONTACT:

GRAHAM THOMSON LTD

3200 AIRPORT AVENUE

SANTA MONICA, CALIFORNIA 90405

(213) 390-8654

Shipped freight collect

Prices and specifications subject to change without notice.