

Free Flight

THE NEWS LETTER OF THE SOARING ASSOCIATION OF CANADA

G4/67 April 1967

EDITORIAL

Although the soaring season is only just beginning, planning for the National Soaring Championship is well under way. There are 101 details to consider—invitations, accommodation, towing facilities and equipment. A good start has been made with the promise of two L-19's from the Canadian Army to assist with towing. Oscar Estebany of M.S.C. has a tremendous task. His work will be worthwhile if he is given support. So why not plan to take part in the National Contest this year, with a visit to Expo as a sideline.

SAC NEWS

Instructors' School

Sufficient numbers have now been obtained, and the school will be held from 11 - 17 June at the G.G.C. site at Pendleton, Ontario.

Radio Committee

Technical requirements for home-built radio telephone equipment for glider use. John Firth writes that, as a result of negotiations with the Department of Transport, the following specifications have been agreed upon. It is unlikely that they will be made more stringent, and it is possible that some relaxation may be possible after some experience.

Transmitter

Frequency (only one channel at the moment)	123.1 MHz
Stability	+.005%
Max Power (in 50 ohm load)	1 watt
Max spurious or harmonic power on any one frequency (50 ohm load)	75 microW

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Bandwidth: Modulation power at 10 kHz to be -26 db relative to power for 50% modulation at 1 kHz.

Receiver

Radiation: Not to exceed 500 microvolts across a 50 ohm load at the receiver input.

All these specifications are to hold for supply voltage variations from nominal to -10% and from -20 to +40°C. The temperature specification is waived for ground mobile equipment. Ground mobile sets are not to be used on "transmit" when underneath controlled airspace.

The main concessions made concern the receiver specification, which allows one to build as good a receiver as one feels one needs. Reasonable mechanical integrity is required; i.e., nothing must be able to fall off and jeopardize the safety of the aircraft. Electronics must be enclosed in a metal box, and must be fused to 200% of normal operating current.

CLUB NEWS

Vancouver Soaring Association

In a letter to the M.S.C., John Keays, President of the Vancouver Soaring Association, informs us that the V.S.A. is organizing a B.C. Centennial International Soaring Meet at Hope Airport on the weekend of 5 - 6 August. In order to obtain financial assistance from the B.C. Centennial Committee, a requirement is that the event must be interprovincial and international. John expects pilots from Alberta and the U.S.A. to participate and wants pilots from other provinces to take part.

Cu-Nim Gliding Club

At the Club's A.G.M. in January, the following officers were elected for 1967:

President - Ken Wilkie Vice President - Owen Wright
Secretary - Eric Montis Treasurer - Eric Jensenberger
Past President - Eric Steisslinger

The C.F.I. will be Eric Steisslinger. The Club hoped to be at Pincher Creek for the Easter weekend.

Red Deer Soaring Association

Frank Holman has sent a notice about a proposed holiday soaring camp.

The notice is bursting with enthusiasm.

"Our Association having investigated soaring possibilities at Windermere, B.C. during 1966, has come to the conclusion that we have discovered a fabulous site for a holiday soaring camp. We feel it is so good that we have taken on the task of organizing the camp as our Centennial project. IT'S A FACT--local soaring is safe, certain and satisfying. Good strip adjacent to the lake front and very close to the mountains. Gold and Silver badge flights are possible, five hour flights are commonplace. Excellent camping facilities, motels, and a licensed restaurant are within 'spittin' distance of the runways. Lakeshore and boating all within a quarter of a mile from the field. The camp is proposed for the last week of July and if sufficient interest is shown, for the first week of August."

The note ends--

"--- the soaring is simply fantastic and extremely thrilling as you thermal upward along the face of trees and rocks or skip along from one peak to the other. It is the only way to experience the thrill of low flying and still be 3000 ft. in the air."

Edmonton Soaring Club

Dave Marsden, E.S.C. President, is whipping up enthusiasm amongst Club members. At a meeting in January, the Club had 17 visitors who had come in response to an ad placed in the local paper. With a new towplane and two Club gliders (counting a TG-1 owned by Chris Falconer), new members are required to help utilize the equipment. Dave Marsden is an ex G.G.C. man, and we recall that before joining G.G.C., he had attended the College of Aeronautics at Cranfield, England.

Jim Reid writes from Edmonton that the E.S.C. plan to buy a Super Cub from the U.S.A. The syndicate Blanik had arrived on February 20, and it was planned to fly it the next weekend. Jim states that he expects this aircraft will be invaluable in stirring up soaring enthusiasm. The Air Cadet League summer camp will again include gliding. He confirms that the League will buy three used 2-22's from Schweizer Brothers and that L-19's will again be provided for towing. All that is needed are pilots and instructors. These enjoy free room and board and receive Air Force pay for their services. We suggest that offers of help be sent to Cecil L. Sorensen, Secretary Treasurer, Alberta Soaring Council, 3931 - 35A Avenue, Red Deer, Alta.

Winnipeg Gliding Club

In the course of a letter to Helen Piercy, Jim Long wrote to say

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that on March 27 he had two soaring flights at Pembina, North Dakota, though there was still 90% snow cover. The Winnipeg Club had displayed a 1-26 at the local sports and boat show, and representatives from both local gliding clubs were in attendance. Jim said that he had been awarded the North American trophy for the longest flight in a 1-26 during 1966.

From the Canadian Aircraft Operator, we read that the W.G.C. will be moving to a new site this summer near the Bird's Hill Centennial Park, 18 miles northeast of Winnipeg.

Pinetree Soaring Club

This is a new club, just formed, at Prince Albert, Saskatchewan. They have about eight members and at present obtain dual instruction with the Saskatoon Club. Solo flying is from Prince Albert Municipal Airport in the Club's Grunau Baby. One member has a Fauvel AV36. They hope to purchase a two-seater trainer shortly, and would be glad to hear from anyone wishing to sell a good second hand machine.

Toronto Soaring Club

We hear from Leonard Parker that 1966 was a most successful season when a 1-26 was added to the Club fleet. A total of 3000 cross-country miles was flown, three diamond badges were completed, and it was another accident free year. New officers are: President - Willi Deleurant, Secretary - Rickie Ellis, Treasurer-Gerald Neal, C.F.I. - Alfred Hofmann, Technical Director - Alex Foster. Their season was begun on April 2, when the fleet was towed to Goodwood for operation there for April and May until their own field dries out.

York Soaring Association

This winter we're making the effort to restore the York air force to its original state--or a reasonable facsimile.

Having dragged the two Doppelraabs down to the City, we've now got the things in bits in Walter Chemela's garage. Basically, where necessary, we're recovering, restoring, repainting, cleaning and swearing as required. Doppelraab ZEA is almost completed and stowed away in, of all places, the recreation room whilst we continue to toil over ZEB, choking the while on dope and space heater fumes. If we survive this smog, we may just have them ready for the soaring season and, hopefully, we may even find a little time to kick the tires on the LK and Mul3.

Meanwhile, back over the border, our recently acquired Super Cub awaits a face lifting job.

Nof if we can only gather this motley assortment of aircraft together in time for the Caledon thermals, we're in business.

We have a very exclusive club. Four gliders-four members (or thereabouts.) Yes, we've had our problems in the past. Last year they were all towing ones but not, we hope, this year. We should have the equipment and once again the use of Caledon's very pleasant airfield, complete with clubhouse/lunch counter, swimming pool and picnic and camping grounds. But we need enthusiastic members (preferably solo stage and beyond); reliable tow-pilots (we've only the one tow-plane and that's as low as we want to get) and PLEASE some instructors! These past few years the writer has found it such a strain on the head to think for two people let alone one!

Walter, of course, is generally up front driving the towing facilities and can't be expected to share the backseat driving as well. I think we'd now prefer to sit back and observe the whole operation--individually--at about 5000 ft.

Gil Parcell

Rideau Gliding Club (Ex Queen's Gliding Club)

The Club Auster was forbidden to use its wooden prop while towing gliders so as a temporary measure, a metal chipmunk prop was borrowed from G.G.C. Walter Piercy reports that the cruising speed of the Auster has increased from 90 to 120 mph. The Club L-K has been towed successfully with the metal propeller on the Auster. A new wooden propeller is on order from the U.K.

Gatineau Gliding Club

Dave Parsey is the new President, with Nick Pattenson, Terry Tucker, Les Staples and Phil White on the Board of Directors.

The Pratt-Reed is to find a new home with the Quebec Club, and Arthur Klinge's K-7, which we have operated for some time, has been bought for a very reasonable sum. At the instigation of various progressive members of the Club, Chris Thompson and John Firth (C.F.I. and Deputy) are dreaming up a revised training programme which will include some compulsory pre-solo advanced training in the K-7, and the availability of dual cross-country soaring and field landing experience. It is hoped this will lead to much better trained pilots than before and rapid progress up to Silver C.

Three new ships will appear this year-Boudreau, Benn and Bienada already have their Phoebus here; Les Staples' BG-12 is about ready to fly; and Norm Tucker's HP-14 is well advanced in Glenn Lockhard's workshop.

Rowan and Courthampton have been spraying paint all over everything, and Firth and Johns hope the snow will stay a bit longer so they will be ready to fly the beginning of the season.

The usual contest is planned for the May 22 weekend, with the special attraction this time for the under privileged that handicaps will be applied for those not owning an Austria SH, SHK, HP-11, or Phoebus. Write D. Courthampton, 175 Bronson Avenue, Ottawa for details.

John Firth

Montreal Soaring Council

At the Club's A.G.M. on February 18, members approved expenditure for a universal trailer for all Club aircraft, for a new entrance gate. A study is to be made for a new hangar. The \$60. plan to cover yearly cost of flying in Club aircraft has been retained in principle—this year the plan will cost \$100.

Directors for 1967 are:

Chairman - Bob Pearson, C.F.I. - Dave Webb, Administration - Fred Cooper, Public Relations - Jorge Diez-Luckie, Maintenance of airfield and buildings - Peter Schneider, Aircraft maintenance - John Bisscheroux, Operation and field services - Dunc Laurin.

The Directors have since appointed Jackie Courval to be Membership Secretary, Jan Lafeber to be Chief Towpilot, Don Wilkin to be Treasurer, and Cindy Bisscheroux to be in charge of log books. The magazine editor is Al Kirker.

A \$25.00 ceiling on credit has been set this year, after which flying privileges are withdrawn. Negotiations are under way to hire an aircraft maintenance man one day a week during the flying season. Membership fee in 1967 is \$42.00; an additional once only levy of \$25.00 is required to permit flying the 1-26.

A further once only levy of \$25.00 is payable to allow cross-country or Blanik flights. The tow charge is still \$3.00 to 2000 ft. Statistics for 1966 showed that there were 163 members, 22 gliders based at the field, and flights totalled 3355 against 2741 in 1965. Flying is expected to start by the end of April.

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A special mention should be made for the help being provided for the National Contest by club member, Jacques Lemieux. All the typing and printing of papers for the contest is being provided by Jacques for the cost of the paper only.

Champlain Soaring Association

At their March A.G.M., new Directors elected were: - President and C.F.I. - Doug McCormick, Secretary-Treasurer-Merv Graf, Public Relations - Bouch Boucher, Equipment and Maintenance - Louis Cotte, Social and Membership Secretary - Doug Philips.

New for 1967 is that a 27 member Boy Scout troop called the "Air Explorers" are to fly at St. John's with the Club. This group already owns a 2-22. The Club hopes to purchase a 1-26 this year.

The second of the one hundred Centennial air shows across the country will take place on April 29 at St. John's Airport, and the Club will take part. The Directors have allocated \$25.00 as prize money for the pilot of a glider from another club who lands closest to the time of 2:15 p.m. The rates for 1967 are - flying membership-\$50.00 (towpilot members \$30.00). The tow charge is \$3.00 to 2000 ft. Glider rental is \$2.00 for the first half hour and 5¢ per minute thereafter.

Quebec Soaring Club teat . T.O.d

At the S.A.C. Meeting, Daniel Lisotte told us that the advertised \$1000. prize for a flight from Montreal to Quebec in a sailplane should be interpreted as a flight from Hawkesbury to St. Raymond, the site of the Q.S.C. A map of St. Raymond and environs is included in this issue. We have no details as to whether the \$1000. is to be paid to the first sailplane pilot to make this flight, to the pilot making the fastest time for the distance, or whether there will be handicaps or even various prizes amounting in all to \$1000. The thing to do is to fly to St. Raymond and find out.

In the aircraft line, we hear that a Pratt-Read has been purchased from the G.G.C.

NATIONAL CONTEST

Contest Director, Oscar Estebany, reports that Expo sponsored invitations have gone out to the national flying clubs of 17 countries. As the number of contestants will be limited to 60, Canadian pilots who intend to compete should send their applications in to P.O. Box 1082, St. Laurent, Montreal 9, Quebec as soon as possible. Please see application form on page 8.

When this card is completed and returned to the registration d the gilot will receive his flight envelope containing take-off cards, ... les, etc. PILOT AND SAILPLANE ENTRY FORM AND APPROVAL CERTIFICATE

the Mational Contest by club merber, Jacques Lemieux. All the
PILOT'S: 10. soled al dapinos ed apl areger lo solicita be sefavi
Name:
Pilot License: Number: Number:
Silver or Gold Badge No
SAC active membership No
I certify that I have read and understood the SAC competition rules, field rules and retrive rules.
Pilot's Signature
SAILPLANE TOTAL SIMOL SE
Type: Colour
Contest No D.O.T. Registration No
D.O.T. Registration Certificate:
D.O.T. Airworthiness Certificate:Last Inspection Date
D.O.T. Operating Limitations:
Shoulder Harness:
Parachute: Date of pack:
Radio
Transmitting Frequencies Receiving Frequencies
Oxygen:
Tie Downs:
Blind Flying Instruments:
Inspection and approval by:
Sailplane Entry Fee Received: (Contest Official's Signature)
When this card is completed and returned to the registration desk, the pilot will receive his flight envelope containing take-off cards, rules, etc.

The general information section of the forms sent out to competitors states that the host club is M.S.C., which operates a 260 acre field on the western outskirts of Hawkesbury, immediately adjacent to the Trans Canada Highway 17. Direction is given by a Silver C sign on the highway. 100, 200, and 300 Km triangles out and return and free distance flights are possible over the flat country which predominates to the south, east and west. Many flights of 300 Kms and over have been made from Hawkesbury to beyond Quebec City and across the border into Vermont and New Hampshire.

During June, the weather is usually good for soaring, and days with typical fair weather cumulus conditions occur frequently. Cloud base varies from 4000 to 6000 ft. M.S.L. and thermal strengths of 300 to 600 fpm are normal. Winds are predominantly from west or northwest and average 15 mph. Temperatures range from 70° to 80°F in the daytime and drop to between 50° to 60°F at night. In general, air mass movements are on a large scale. Large bodies of water and sudden changes from flat to hilly country can create interesting local changes in soaring conditions.

The Hawkesbury airfield is owned by M.S.C. and is used entirely for sailplane operations. It is a grass field allowing 3000 ft. of runway in any direction. The contest registration fee will be \$25.00 per aircraft. Aerotow launching will be used with a charge of \$4.00 for the standard 2000 ft. tow. Numbered tie-down spaces for gliders and a tie down park for visiting aircraft will be provided. A large section of the field will be allocated for tents and camping trailers at no charge to competition pilots and crews. Near the field is a private lake for swimming. The M.S.C. will make arrangements for reservations in the local hotels, motels, etc., for those requiring accommodation.

F.A.I. AWARDS

Badges approved in Canada during January and February, 1967 were:

Gold C

49 Albert M. Pow; K-6; Morrisville, Vt; M.S.C.

Silver C

195 Lawrence D. Rowan; BG12A; Warren, Vt; G.G.C. 196 Willibald Krug; Std. Austria, Sheffield, Ont; S.O.S.A. 721 John C. Knowles; 1-26; S.O.S.A.

Gold C Altitude

Willibald Krug; Std. Austria; Warren, Vt; S.O.S.A. Willis R. McLaughlin, S'lark IV; Rocton, Ont; S.O.S.A.

Silver C Legs

John H. Burrows; 1-26; Alt. Dist.; M.S.C.

John C. Knowles; 1-26; Dur; S.O.S.A.

J.W. Featherstone; 1-26; Dist; G.G.C.

Approved during March 1967 Gold C Altitude

John W. Featherstone; 2-32; Colo Springs, Colorado Jim W. Bader; Std. Austria; Warren, Vt.; S.O.S.A. Joseph Dobriec, Cherokee; Cowley, Alta; C.N.G.C.

Silver C Legs

A. Froebel; 1-26; Dur; St. Raymond, Que; Q.S.C. Frank Holman; Zeypher; Dist; Red Deer, Alta; R.D.S.C.

C Badges

722 Robert F. Stevens; K-7; G.G.C.

723 A. Froebel; 1-26; Q.G.C.

724 Dirk Zutter; Zephyr; C.N.G.C.

SAILPLANES FOR SALE

Flat-topped LK 10A, modified to single seat with single bubble. Excellent condition, complete with A.S.I., altimeter, compass, electric T and B, and trailer. A fine machine for reasonable performance at reasonable cost. Price \$1500.00. G.G. Dunbar, 1419 Chardie Place, S.W., Calgary, Alta.

SH-l Austria, excellent condition, with enclosed metal trailer, wing covers, built-in radio antenna, clamps for oxygen system, available July 1. Make offer to C.M. Yeates, 96 Lynwood Drive, Beaconsfield, Que.

1965 L Spatz 55, Serial #778. Instrumentation includes: electric turn and bank, PZL sensitive airspeed, PZL sensitive total energy vario, Cook electric total energy variou, sensitive altimeter, etc. Complete with trailer, parachute and winter barograph.

Price - \$4500. Operating with S.O.S.A. Contact D.A. Brown, ll Norbury Crescent, Scarborough, Ontario, Denyck Brown's comments are woth quoting:-

"It's funny, I haven't flown this aircraft for months, and we decided to sell it this weekend (again!). I had no feeling in the matter at all. But when you have to sit down and list the items, each one has its own little set of memories—how we sent cables raising hell about this bit not having arrived, bugging the shipping company to see when it was being shipped, etc., etc., etc. I wonder how many people have sat down to write an ad and have decided to keep the old girl for another season.

NEWS FLASH

Bev Shenstone Retires

We would like to pay tribute to this good friend of gliding--Canadian born--who retired on December 31, 1966. For the past two years, he has been technical director for B.O.A.C. He had made many contributions in the field of light weight aircraft and has promoted manpowered flight. Through the E.A.I., Bev has given valuable assistance to the sport of gliding. He was, for instance, one of the authors of The World's Sailplanes. We wish him a long and happy retirement in Cyprus.

Abbotsford, B.C.

\$1000. prize money is being put up by Skyway Air Services Limited. The owner, Art Seller, conceived the idea of a gliding competition starting from Fort Langley, B.C. The release altitude from the towplane must not be more than 2000 ft., between Forth Langley sailplane strip and Mission, B.C. The landing must be made somewhere east of a direct line between Moyley, Alta. and Pincher Creek, preferably at the latter. The distance is about 400 miles. Only Canadian registered sailplanes flown by Canadian pilots are eligible. The contest will be open for a full year from April 1, 1967. Full contest rules may be obtained by writing Art Seller, Skyway Air Services Limited, Box 220, Abbotsford, B.C.

CIRRUS DEVELOPMENT

Charlie Yeates has sent on a letter from Motorless Flight Enterprises of Glastonbury, Conn., agents for the Schempp-Hirth Cirrus. They state that the prototype has made over fifty test flights and is reported that "manoeuverability is like a K-6. Climbing performance is better and penetration up to 140 Km is as good as the BS-1 and AS-12." Comparison flights at higher speeds with these two sailplanes have not yet been completed.

Construction is all fibreglass, except for the foam cores used for the sandwich construction in the wings. The wing has gentle stall characteristics which make it possible to thermal near the stalling speed, and the aircraft will stay in the air under weak conditions. Use of a thick Wortmann airfoil with a wide low drag bucket gives low drag over a wide range of flight speeds, and the thick airfoil and elimination of flaps has resulted in a strong relatively light wing. Static test loads of up to 15 g have been imposed on the wing without producing failure.

Spoilers produce 4 m/sec sink at 56 mph while use of an auxiliary tail parachute increases this to 6 m/sec for short field landings. The fuselage is designed in accordance with the latest wind tunnel studies by Dr. Wortmann, and has low drag in spite of the roomy cockpit. An internal tubular steel frame ties the wings, pilot's seat and landing gear together. The first prototype had a Vee tail like the SHK, but second prototype will be more conventional, as shown on the drawing in the January 1967 Free Flight. Final choice of the tail arrangement will be made after the performance of the first two prototypes has been compared. Regular production will begin in 1968. It is hoped to keep the price down to \$7900. U.S., F.O.B. Hamburg.

We have since heard that John Ryan and George Moffat have both placed orders for the Cirrus.

Scheibe Dealer

Paul Krauss of 426 St. Anne's Road, Winnipeg 8, Man. has sent us his latest brochure on Scheibe sailplanes. Sailplanes currently in production are the L Spatz III, SF 27, and the Bergfalke III. He has a slightly used (15 flights) 1966 L Spatz III for sale.

DIAMANT

Prices and Delivery (Very Important)

15 metre $16\frac{1}{2}$ metre 18 metre

Price \$7357. \$8104. \$8656.

Delivery September 1968 July 1968 July 1968

Prices are F.O.B. Montreal, are without instruments, but include shipping costs

Canadian Dealers:-

George Adams and Partners, 292 Westgate Drive, Rosemere, Quebec

ADVERTISING PRICES

It has been and is S.A.C. policy to allow private advertisements for sailplanes without charge. Commercial advertisers are, however, expected to pay. Rates are \$12.00 for a full page, \$6.00 for half a page. Terms are a cheque to accompany request for space.

ACCIDENTS AND INCIDENTS

On 27 November, 1966, the left landing gear strut failed on a PA-18 Super Cub during taxying. The aircraft fell on its left wing, damaging the spar and also the propeller. The accident occurred after a normal landing and rollout, on the main landing strip, on a windless day. Pilot's experience was with an airline and four years of regular towing on Super Cubs.

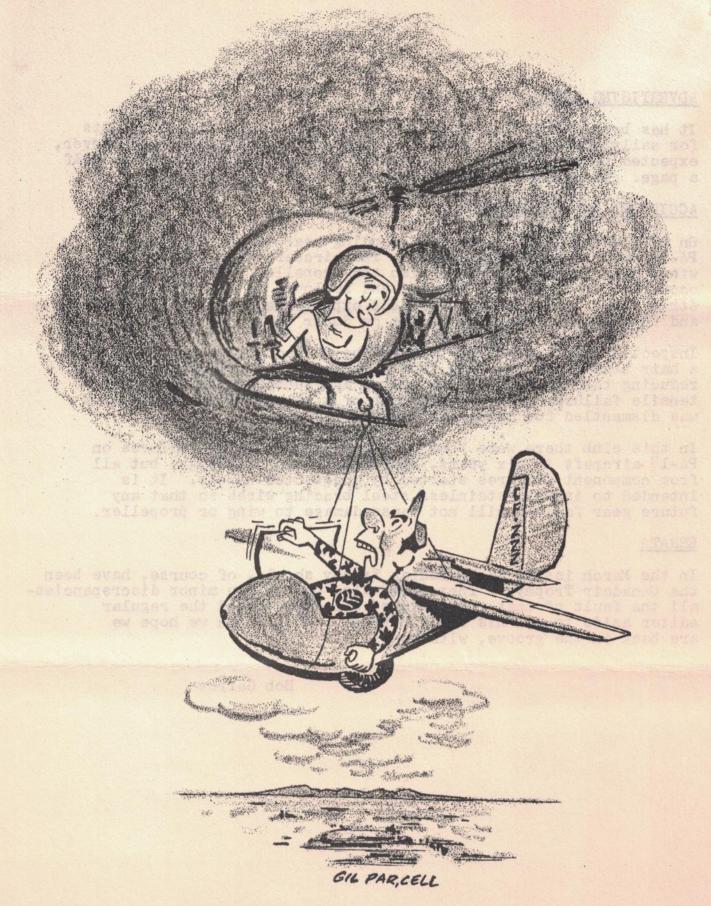
Inspection and laboratory test on the failed component indicated a hair line crack one inch from a welded end fitting, greatly reducing the strength of the member and subsequently causing a tensile failure. The landing gear of a second PA-18 in the club was dismantled for magnaflux testing.

In this club there were four different landing gear failures on PA-18 aircraft in six years, none due to hand landings, but all from component failures started by undetected cracks. It is intended to install stainless steel bracing wires so that any future gear failure will not cause damage to wing or propeller.

ERRATA

In the March issue, the Canadian Trophy should, of course, have been the Canadair Trophy. There were also one or two minor discrepanciesall the fault of that guy "Bairns" who even pushed the regular editor aside to get his name in print. This month we hope we are back in the groove, with yours truly,

Bob Gairns



ALRIGHT THEN! FOUR HOURS AT FIFTY BUCKS AND SIXTY FOR THE LAST ONE - BUT STAY OUT-A SIGHT, CAN'T YER!

SUPPLIES

P. O. BOX 621, ST. LAURENT, MONTREAL 9, P. Q., CANADA

GET WITH IT - GET A BLANIK

(Now six in Canada, seventh on order)

Those of you who purchase the S.S.A. 'Soaring Directory' may have noticed the adjacent advertisement that appeared on page 99 of the 1966 Directory. May we suggest that you read over this list of titles and perhaps choose some to up-date your own soaring library?

Many S.A.C. members already keep abreast of world soaring development by subscribing to the excellent B.G.A. publication 'Sailplane and Gliding'. Whether you already subscribe or not we would like you to know that it costs you no more to purchase through our agency; you will also save a bit of trouble with foreign exchange and we also supply the convenience of automatic subscription renewal with later billing.

As agents for the excellent line of Polish PZL instruments we have purchased a fair stock and can offer the following: -

Airspeeds, PR-250s, 0-140 knots	\$35.00
Airspeeds, PR-400s, 0-250 knots	\$35.00
Total energy compensators, KWEC-1	\$15.00
Variometers, WRs-5, + 5 m/sec, ft/min,kts Variometers, WRs-30,(coarse) + 30 m/sec	\$60.00
Variometers, WRs-30, (coarse) + 30 m/sec	\$56.00
Compass, with rotatable bezel, BS-1	\$45.00
Compass, spherical, for canopy mounting,	
type KI-13	\$70.00
Fore and Aft level, CHD-2	\$11.00
Turn and Slip indicator, small case,	
4.5v	\$120.00

We also have a small stock of clean surplus instruments; write for quote on unlisted items.

For aspiring aerobats small case G meters	\$14.00
Small case panel compasses	\$14.00
Small bank indicators	\$ 7.50
Bendix sensitive altimeters	\$30.00

All instruments are sales tax paid, post extra.

SOARING SUPPLIES

No scaring pilot should out the following three books ommended in the F.A.A. Glider amination Guide).	(as rec-
Soaring Pilot, Welch & Irving book available for the sol describes everything	o pilot.
children Disport The heat 1	

Gliding, Piggott. The best book avail-able for the beginner, takes him through training to soaring . . \$5.00 Meteorology for Glider Pilots. This book, by Wallington, supercedes all previous books on soaring met. \$6.00

The following books are also recommended to complete your library, or as gifts.

The Story of Gliding. Welch. 35.60 Glider Plying. Welch. Where No Birds Fly. Wills. \$4.20 Cloud Reading for Pilots. Douglas. \$3.60 Cloud Study. Ludlam & Scorer. 33.00 Beauty of Gliding. (Photographs). \$7.00 36.00 Go Gliding. Welch & Denes. Tackle Gliding This Way. Simpson. 32.50 Weather. Scorer.

Theory of Flight for Glider Pilots Stafford-Allen. \$2.50 Further Outlook. Ludlam & Scorer. \$3.00 The British publication 'Sailplane & Gliding' makes an ideal companion to 'Soaring'. Year's subscription. 5:

Send your check with order and the books will be mailed direct to you from England. (Saves extra mailing costs). Full refund guaranteed if not satisfied.

INSTRUMENTS

We stock all the most popular instruments, new, used, and surplus. State your wants and check our price.

OXYGEN All equipment available.

RADIO

Agencies being arranged.

ACCESSORIES

If you want any item of equipment associated with gliding you can rest assured that we will do our best to get it for you.

Over twenty years of soaring activity in Europe, Canada, and the U.S.A. has given us widespread contacts.

BLANIK SAILPLANE

There are now six Blanks in Cannala and two in California. All these owners investigated carefully before buying their ships. May we suggest you do the same?

SOARING SUPPLIES, P.O. Box 621, St. Laurent, 9, P.Q., Canada.

We are agents for the new Polish SZD-30 PIRAT sailplane (see inside front cover January 'Soaring') This new ship is a possible replacement for the K-6 as the most popular standard class ship. Write for details.

Please write to us at the permanent Box Number or to Fred Cooper at 526-39th. Ave., Lachine, P.Q. (637-7032) or for queries on equipment most likely to be available in the U.S. write to Terry Beasley, at 2727 Arizona Ave., #6, Yuma, Az 85364, U.S.A. where he is still enjoying continuous summer. (Phone A/C 602-783-4163)

P. O. BOX 621, ST. LAURENT, MONTREAL 9, P. Q., CANADA

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(Now six in Geneda, seventh on order)

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fe are agents for the new Polish EAD-30 PIRAT sallplane (see inside front cover January 'Souring') This new ship is a possible replacement for the K-6 os the seat popular standard class ship. Write for details.

Please write to us at the personent Box Number or to Fred Gooper at 526-39th. Ave., Lachles, P.Q. (637-7032) or for queries on equipment most likely to be evaluable to the U.S. write to Terry Bessley, at 2727 Arizons Ave., Mo. Yuma, Az 85364, U.S.A. where he is still entowing continuous summer. (Phone 1/c.