



Free Flight

Issue 6/71

November-December 1971.

S. A. C. NEWS

1972 WORLD GLIDING CHAMPIONSHIPS (VRSAC, YUGOSLAVIA):

The rating of the Canadian pilots eligible to represent Canada in the 1972 World Gliding Championships has now been completed. (Note: for method of selection, see Page 11 of Aug-Sept. 71 issue of 'Free Flight'). The results are as listed in numerical order below, the first four names being the chosen pilots. The first two pilots on the list have the choice of which class they wish to compete in and both have chosen the Standard Class.

<u>PLACED</u>	<u>NAME</u>	<u>PLACED</u>	<u>NAME</u>
1 =	MIX, Wolf	8	DELEURANT, Willi
1 =	WEBB, Dave	9 =	BLUNDEN, George
3 =	FIRTH, John	9 =	WERNEBURG, Hal
3 =	YEATES, Chas.	11	TROUNCE, Peter
5	MAMINI, Dick	12	LOCKHARD, Glen
6	MARSDEN, Dave	13	CHABOT, Henri
7	COOK, Dick	14	KOVACS, Kurt

The rating list is, of course, based on the result of each eligible pilot rating every other pilot on the list but himself. However, in order to assist this process, the pilots are provided with background data showing each pilot's soaring experience. For those interested in this selection process, the noted data is included on page 16 of this issue.

Walter Piercy and Peter Folkes (SOSA) are initiating the usual raffle in the hope of again raising money to help the team. At the present time no Government funds or other financial assistance is assured. Help in locating suitable sailplanes, retrieve cars, equipment, etc. would be very much appreciated and such information should be sent to either the pilots themselves or T.R. Beasley.

S.A.C. Members interested in crewing should contact the 1972 Internationals Committee - P. Trounce or T. Beasley (See Organization Chart for addresses).

MAIL VOTING

It is time again for the annual mail vote for the election of Directors of the Soaring Association of Canada.

In early November, each Club will receive the first of three letters, with procedures to be followed. Will the Officers of each Club please arrange to handle its responsibilities concerning this election within the timing that has been designated. As you know, this Association is an association of clubs, and EACH CLUB should give careful thought to the type of individual(s) it wishes to have in the position of handling gliding affairs in Canada.

Walter J. Piercy,
Past-President.

F.A.I. COMMITTEE

CANADIAN RECORD:

100 Km. two-place	47 Km/hr.	WALTER F. CHMELA, Y.S.A.
SPEED TO GOAL		Ka-7. Flight made Aug 2/71.

Also from the York Soaring Assoc.

DAVID BATCHELOR of Orangeville, Ont. rapidly completed his Silver "C" while flying with YSA in August 71:

Aug. 1st he flew an LK for 5 hours and 11 minutes.
Aug. 2nd a MUL3 was flown for the distance leg.
Aug. 8th he flew the LK and obtained a 4,000' gain of height.

(At the age of 25 David has a lot of potential it seems).

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APPLICATION FORM FOR F.A.I. SOARING BADGES (SAC Form No. 10, Issue 7)

Please make the following correction to the abovementioned form which was attached as Appendix II to 'Free Flight' Issue 4/71 - June-July 1971:

Page 4 - 4th line from bottom of page should read 40 not 25
i.e.: "The distance to be deducted is 40 times the loss of
height reduced by 1000 metres".

(Note: This doesn't come into play very much, usually only on wave cross-countries where there might have been a high tow and/or flight to lower terrain.)

C.M. Yeates, Chairman,
F.A.I. AWARDS

S.A.C. SAFETY COMMITTEE:Part II'POINTS TO PONDER'

Cross-country soaring is fun - no doubt about it. However, this type of flying is very demanding and requires much concentration en route, preceded by meticulous pre-flight planning.

What do we teach students about that 'inevitable, rope break? 'Plan ahead - have your emergency procedure ready - and update it as you climb, then when the 'break' comes, you initiate your alternate procedure.' This is 'heads-up' flying at its best. The same type of thinking applies to cross-country soaring except on a much larger scale. Do as much pre-planning as you can while you're on the ground. This will reduce your airborne exercises, so that you may apply the maximum amount of attention to the task at hand.

One of the most important pre-flight exercises is to familiarize yourself with the planned task. Check your map and get to know the topography - are there large areas of unlandable terrain - is it hilly - are there creeks and rivers - is there a large elevation change - and so on. Think out as many possibilities as you can beforehand and then - like a rope break - you'll be ready with a planned procedure.

Many Clubs use a zero elevation setting on the altimeter for training around the gliderport. This certainly simplifies local procedures and removes some of the workload from the student as his altitude is readily apparent, however, for cross-country soaring, the pilot should use a mean sea level setting on his altimeter. On a good cross-country day, it would be unusual to encounter more than a few hundredths of an inch change in atmospheric pressure through the flight, so that altitudes above ground would be accurate within a few feet when spot heights off your map are subtracted from indicated altitude. This method takes the guesswork out of altitude judgement. An accurate 'decision altitude' is a prime safety factor and is the first step in a successful out-landing. The decision height will usually be between 1,000' to 500' above ground depending on the sailplane used and the pilot's experience in cross-country flying. Make your choice of fields carefully at your decision altitude, then knowing where you can land and if sufficient altitude remains, scout the area once more for that elusive thermal. If a landing must be made, concentrate completely on your circuit - forgetting any lift you fly through - and use a standard circuit if at all possible. Your speed should be no faster than necessary for prevailing conditions remembering that the longer the landing roll, the greater the possibility of damage to your sailplane by that hidden boulder, chuck-hole or ditch. And watch that landing toward the river - it's probably got a down slope to it.

It all sounds pretty simple and it is - provided that you can call the shots the way you want - so be prepared.

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'POINTS TO PONDER' (Cont.)

When you have to make a split-second decision at 200' due to inadequate planning, your life may depend on you making the right one. If you make the wrong decision, at best you will probably end up with a bent sailplane and some scars to remind you of your error.

DON'T LET YOUR ENTHUSIASM RUSH YOU INTO A POORLY PREPARED FLIGHT

You probably wonder where I got so 'worldly wise'. I've been there and I have the scar and the bent sailplane.

Dave Tustin.

(Note: Dave would welcome articles on 'safety' matters. Please write to him direct at 581 Lodge Ave., Winnipeg 12, Man. ED.)

GLIDER PILOT SAGA - London (England) Gliding Club.

(With thanks to the New Zealand GLIDING KIWI for reminding us of it).

A glider pilot bold was he,
A maiden unsuspecting she,
He landed one day near her home,
Demanding tea and telephone.
Her dainty heart it skipped a beat
Steep turns at five and twenty feet.
The trees were very, very tall,
The field was very, very small.
And then her heart did give a bound,
To see him there safe on the ground,
So handsome, gay and debonair,
The answer to a maiden's prayer.
They dallied there for many hours,
Among the birds and bees and flowers,
And when at last the trailer came,
Alas she'd lost her maiden name.
What follows here is sad to tell,
They drove away as darkness fell.
And though devotion he did swear,
He soon forgot that maiden fair.
Till after many moons there came,
A letter headed with the name,
Of Swindle, Swindle Son & Sin,
Solicitors of Lincoln's Inn.
Dear Sir, our client wishes us to state,
That though she wants no fuss,
Five hundred smackers more or less,
Will keep this matter from the press.
The moral here is plain to see:
The ordinary flying fee,
Is less expensive than you thought,
Compared with other forms of sport.

S.A.C. NEWS (Cont.)TECHNICAL COMMITTEE MEETING WITH MINISTRY OF TRANSPORT

The chairman of your Technical Committee was invited to visit the Ministry of Transport (M.O.T.) on 24 August to discuss with the Aeronautical Engineering Division, the arrangements for issue of new glider type approvals.

I am pleased to report that the Ministry does not intend to change the existing arrangements, which have worked well for several years.

The following points of our discussion are believed to be of particular interest:-

1. Permits to Fly

It was stressed by M.O.T. that the issue of a Permit, on the recommendation of SAC, is intended solely to allow the glider to be flown during an evaluation program. As soon as sufficient data has been gathered then the Flight and Engineering appraisals should be prepared and SAC will apply for a Type Approval. The Ministry, and your Committee, are concerned that all too often the importer considers the initial Permit as an authorization to fly pending issue of a C of A. This is not the case. The Permit is a vital link in the chain of events leading to a recommendation for a Type Approval, which is essential for issue of a C of A. It should be noted that, in future, the Ministry will not extend the period of a Permit, except for cause and satisfactory explanation from this Committee.

2. Canadian Type Certificates

The Canadian Type Certificate is prepared by this Committee, based on the applicable country of origin Type Certificate, and submitted to M.O.T. for approval. It was agreed that, in future, this Committee would contact both the glider manufacturer and the National Airworthiness authority to determine if any waivers against the airworthiness requirements had been granted for the specific glider.

When M.O.T. issues a Type Approval copies are sent to the manufacturer, and to the National Airworthiness authority, accompanied by a request that M.O.T. be advised of any modification, airworthiness directives, etc.

Cont'd.

TECHNICAL COMMITTEE MEETING WITH M.O.T. (Cont.)

3. Export Cs of A

After a Type Approval has been issued by M.O.T. any following specimens of the glider that are imported should have a statement on the accompanying C of A for Export, (issued by the national airworthiness authority) stating that the particular glider complies with the applicable Canadian Type Approval.

4. Airworthiness Directives

The problem of airworthiness directives (A/D's) was discussed. In the past we have found that some owners receive bulletins direct from manufacturers, while others do not. The M.O.T. viewpoint is that it is the owner's responsibility to receive, and comply with, applicable A/Ds. (This indicates that anyone who purchases a used glider should immediately write to the manufacturer to advise him of the change of ownership and request to be advised of all service bulletins, etc.). The M.O.T. requirements for compliance with foreign A/Ds are very simple, viz:-

Mandatory to incorporate if the issuing national authority made it mandatory, or if M.O.T. so directs. All other A/Ds are optional.

In view of the fact that neither M.O.T. nor S.A.C. can be sure that all owners are being made aware of A/Ds, S.A.C. has agreed to write to all manufacturers of gliders presently known to have Canadian Type Approvals requesting that S.A.C. be supplied with copies of all A/Ds and Service Bulletins. This should help us bring information to owners' attention, and also enable us to discuss any directives with M.O.T.

These are the main points that were discussed. It was unfortunate that time did not permit further discussion on the certification of motor gliders; but this too, will be pursued. I would like to express my personal thanks to General Bridgeland (the new Chief Aeronautical Engineer) and Mr. Rosewarne, of Aeronautical Engineering Department, for the invitation to discuss these items of mutual interest, and I hope that the close co-operation (and enviable technical safety record) can continue.

T.R. Beasley, Director,
Chairman, Technical Committee
(9 September 1971)

S.A.C. TECHNICAL COMMITTEE NEWS

This year we have obtained Canadian Type Approvals for the LS-1 and the Kestrel. We are presently working on the Rhonlerche and the ASW-15. It is hoped that a position may be established soon regarding motor gliders.

INSURANCE

We have received a lengthy letter from the broker with whom we are attempting to negotiate a group rate. Copies of the letter are being mailed to all Club Presidents, and all S.A.C. Directors. If you are particularly interested in your club's, or your own, insurance policies, then please assist in reviewing the letter and providing comments to me (Chairman, SAC Technical Committee; for address see Organization chart).

FOREIGN PILOTS FLYING IN CANADA

In answer to a direct question to the local Ministry of Transport office concerning the requirements for licensed foreign glider pilot visitors to be able to fly solo in Canadian registered gliders in Canada, the following reply was received:

"At the present time, a Canadian Glider Pilot Licence or Tourist Pilot Permit is required to fly solo, in Canada, in a Canadian registered glider. The latter may be obtained following presentation of a valid foreign glider pilot licence, completion of an examination based on Air Regulations, and payment of a \$5.00 fee."

S.A.C. understands that the requirements are under study towards allowing foreign licence holders to fly on their own licence. We intend to pursue this with M.O.T.

PROJECT SIGMA NEWS

The interesting British SIGMA variable geometry sailplane made its first flight on 12th September, flown by Nick Goodhart. Lateral control difficulty was experienced and first reports indicated that there would be a considerable delay in making further flights. It has since been learned that the source of the problem was found to be caused by a twist in the wing, which has now been cured. To date, flights have only been made with the area increasing flaps locked in the extended position. It is still hoped that SIGMA development flying will be completed in time for the aircraft to be flown in the 1972 World Contest in Yugoslavia, where we are sure that it will be the centre of technical interest.

T.R. Beasley, Chairman,
S.A.C. Technical Committee

1971 ROCKTON MUD BOWL CHAMPIONSHIP

From July 24th through August 2nd SOSA Gliding Club held a "Mini Contest", partly as a rehearsal for the 1972 Nationals, and partly just for the fun of it. We were able to get 6 Contest days in the 10 day period, and if it had been a National Contest there would have been seven. A total of 19 pilots participated at least part of the time, (all SOSA members), and an average of just over ten gliders flew every task.

To encourage beginners to participate and also to keep retrieving to a minimum, (several contestants were sharing crews and a few even sharing trailers!) tasks were set with the object of getting as many people as possible back to Rockton. Even so the respectable total of 4,150 task miles was flown during the Meet; an average of nearly 70 miles per "sortie".

July 24th - Rain. No Contest.

July 25th. 67 mile out and return to Belwood Lake.

Nine of the 12 starters finished this race. Peter Trounce (Phoebus 17) gaining 1,000 points with a speed of 47.3 mph. He was followed by Jim Carpenter (HP-11) at 41.3 mph. Vince Steele, our CFI, was third in the club's new 1-34.

July 26th. No Contest - weather again.

July 27th. 69 mile triangle, Woodstock-Brantford A/P - Rockton.

P. Trounce again led the field, this time with a speed of 47.0 mph. Dennis Gyorffy (Std. Libelle) was second with 37.8 mph, and Steve Burany's beautiful HP-14 was close behind at 34.5 mph. Only two of the ten starters landed out.

July 28th. You guessed it - No Contest.

July 29th. Prescribed Area Distance.

In order to cut down on retrieves on this distance task, the Task Committee (Contest Director J. Kelley plus pilots Trounce and Wynne Thomas) decided to alter the rules for a "cat's cradle" somewhat. It was decreed that no points would be awarded for mileage beyond the last turn-point photographed, or, of course, landed at. Also it would be permissible to shuttle back and forth between two turn-points as many times as one wished. The turn-points were Hagersville, Brantford A/P, Woodstock Dam, St. Mary's Cement Plant, Stratford Festival Theatre, Conestoga Dam, Rockton, and finally, believe it or not, Punkeydoodles Corners! This was the best soaring day of the contest and the ten participants averaged almost 140 miles each. Trounce (not again!) was the winner with 208.5 miles. Close behind was Burany with 199, and in third spot was Gyorffy with 175. "Willy" Werneburg took advantage of the rules to complete the milk run between Rockton and Brantford five times in the club 1-23. A total of 160 miles, good for fourth place.

Peter Van Dyken (Skylark 4) tried "just one more" trip to Brantford at the end of the day and was the only one to land out. He got an aero-tow retrieve from Brantford so all the crews had a day off.

July 30th. Too windy to set anything as a task except a downwind dash. Not enough crews to retrieve everybody and thunderstorms were forecast. No contest.

July 31st. Pilot selected Goal and Return.

The Task Committee decided to try something new. This time it was pilot's choice. The goal did not have to be declared in advance, one just flew until one thought one could go no further and still make it back, then took a picture (it had to be of an identifiable location), and came back. The incentive for coming back to Rockton instead of just flying downwind was having one's points doubled if one made it back.

Conditions were poor on this day, and for awhile it looked as if not enough people would cover the 50 Kms. needed to make it a contest day. Three of the ten starters did not get away and the first three back had distances of 30 miles or less. Then Burany and Gyorrffy came in with 32 miles each followed by Trounce with 39. It looked as if Peter was going to be the winner once again, but wait, where is Jim Pick in the Pirat? Just when everybody thought he must be down somewhere he appeared over the field, and proved to have made it all the way to St. Mary's and back for a total of 81 miles and 1,000 points.

August 1st. 103.5 mile triangle. Fergus-Woodstock Dam-Rockton.

The Contest Director, having seen Gil Purcell's cartoon in SOARING, felt that he was not living up to expectations and tried to set a 500 Km. triangle. Unfortunately?, he was outvoted.

The day did not quite live up to the forecast, (on most days any resemblance between the forecast and the weather actually experienced was purely coincidental!) and only half of the twelve starters made it all the way round. Burany got 1000 points for a speed of 44.5 mph, with Trounce making the place position with 42.5 mph. Hal Werneburg came third in his Std. Cirrus, closely followed by Charlie Bonds in his HP-11.

August 2nd. Out and return to Elmira, Ont.

The Contest Director voted in favour of this task, being under the impression that it was the other Elmira that was to be the turn-point! Only four of the seven starters made it all the way there and back. There was a strong cross wind and thermals were not very strong. No one landed out as the three non-finishers all turned back before reaching the turn point rather than take a chance on having to be retrieved. The Libelle was back first with what turned out to be the winning time. This time Julius Nagy was the pilot and he had a speed of 38.8 mph. Trounce had not crossed the start line and had a slow time. He went round again and although he was much faster, he still had to be content with 37.5 mph and second place. Burany was third at 34.3 mph and the other finisher was W. Thomas in his Ka-6CR.

Wynne concentrated on staying up rather than flying fast and this strategy enabled him to get back to Rockton on all six days.

Peter Trounce was the overall winner with Steve Burany 2nd and Wynne Thomas (winner of the Standard Class) third. The team of Gyorffy and Nagy took fourth place. The contest was considered a great success, no gliders were damaged, and we were able to find out what needs to be done to make next years National Contest, (to be held at Rockton from July 25th to August 3rd,) an even bigger success.

As we had only two tow-planes, and wanted to interrupt normal club flying as little as possible, the designated start system was used every day. For a change of pace, a mass start was tried on two of the races. Starting time was announced before take-off with a final count-down being given over the radio. This worked very well and looked quite spectacular the first time it was tried, as most gliders started out from the same thermal.

The affair concluded with a steak cockout and awarding of prizes generously donated by Norm Jull. Club President Peter Trounce became custodian of the Rockton Mud Bowl for the next year. Most of the contestants qualified for an award of some kind.

Finally the Contest Director would like to thank all those who helped to make the contest the success it undoubtedly was by performing such tasks as manning start and finish lines, manning the telephone, flying tow-planes, organising communications, procuring weather forecasts, etc. Their names are too many to mention.

Final Standings and Points

1. P. Trounce	Phoebus	5459 (6)	G. MacDonald)		
2. S. Burany	HP-14	4950 (6)	9. J. Pick)	Pirat	2087 (5)
3. W. Thomas	Ka-6CR	4222 (6)	D. Robinson)		
4. D. Gyorffy)	Libelle	4187 (6)	10. H. Langenscheidt)	Sk1k 4	1349 (3)
J. Nagy)			P. Van Dyken)		
5. V. Steele	1-34	3043 (6)	11. D. Ferguson	Ka-8	1050 (3)
6. R. Gohs	HP-11	2295 (5)	12. H. Werneburg	Cirrus	965 (1)
7. C. Bonds	HP-11	2255 (3)	13. J. Carpenter	HP-11	943 (1)
8. M. Ernst)	1-23	2139 (4)	14. H. Augustine	Ka-6E	832 (6)
W. Werneburg)					

Figures in brackets following points are the number of days each glider flew.

John A. Kelley,
Contest Director

"THE COWLEY DIAMOND MINE - 1971"

Usually one must be patient in prospecting for altitude diamonds, even in Alberta with our fabulous Rockies. Ask John Pomietlarz, Canadian Diamond Badge #6, and International Silver Company #430. Ask Julien Audette, our National altitude record holder, or Ross Grady, one of the first to pick a diamond out of the cold blue skies above Cowley, Alberta. They were among the first to go on the 'pilgrimages' to the Pincher Creek area in southwestern Alberta, in search of "The Wave".

For John and a number of others, the pilgrimages eventually paid off in diamonds, but it took years of patient gambling against the frustratingly unpredictable weather. This is the land of the Chinook wind, which can roar over the mountains in mid-winter to melt the snows and bring a temporary, very muddy Spring. These same strong westerlies attracted our first wave hunters, usually during Easter in Spring, or on the fall Thanksgiving weekend. But, in an area that cannot only produce a Chinook in winter, but a fairly frequent blizzard in June, no spring or fall weekend could be guaranteed to be right for "the wave."

It also took persistence to discover the most effective way to contact the big lift. They flew originally from Cook's field at Pincher Creek; a long tow to wave, and it meant that a rope-break in the terrific turbulence often encountered, or a premature release, necessitated an off-field landing. This all ended with the discovery of the Cowley Forestry Strip, eight miles north of Cowley in the Waldren Flats.

The setting is magnificent. Eight miles to the west, towers the first massive wall of the Rockies; the Livingstone Range. A few miles to the east a range of high, knobbly old pre-glacial hills, the Porcupines, crowned with tough little pines, walls in the eastern edge of the flats. The deeply trenched Old Man River curls around the foot of the hills, where range land runs down to striped grainfields, patterned that way to counteract the highly erosive winds. Here, near the mouth of the Crowsnest Pass, in unrivalled mountain prairie panorama, a couple of dozen pilots and eleven gliders from the Edmonton, Calgary and Regina clubs converged on Cowley during Thanksgiving weekend 1971, most of them to seek "the wave" again.

On Friday evening, October 8, gliders and people from Edmonton, Calgary and Regina, began to arrive at the small towns of Pincher Creek and Lundbreck for overnight lodging; Cowley itself being too small. All the right factors seemed to be combining in our favour. It was mild and clear, with a strong High sitting near us, and a westerly flow over the mountains indicated.

Came the dawn! Saturday October 9. The Edmonton contingent (Jack Burrell, Ron Innes and Dan Pandur with their Libelle; Ed Dumas, Don Seller and Les Passmore who would fly the club 1-23D, and Harry Byrt with the HP-11 that he and John Pomietlarz share) headed out to the strip early, under the urging of John who was determined to make everyone rise with the birds. Don & Les headed over to Pincher Creek to pick up Don's Super Cub which would be our towplane. It was cloudless, warm, and slightly hazy. At Pincher Creek the wind was already westerly at 15-20 mph. The haze layer indicated stable, layered air - ideal for steady well formed waves. Neil Bell & I arrived with the 1-23 in tow soon after, from Claresholm where we'd spent the night with my family, and hot on our heels Julien Audette with his HP-11 and some of the Regina club members with two 1-26's and another Super Cub arrived.

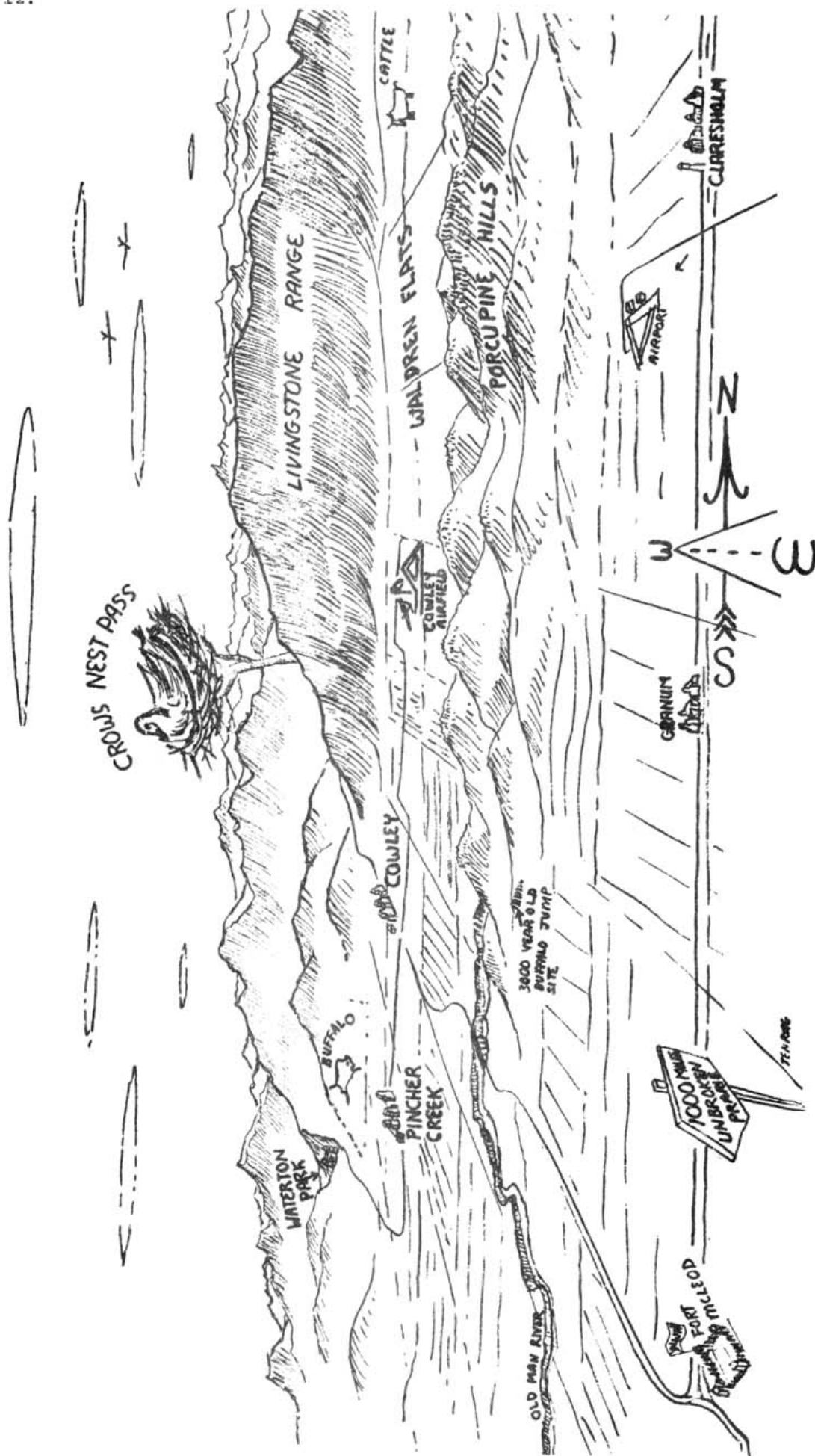
On arrival at the strip we found everything ideal except the wind, which was blowing directly out of the north, down the flats, and not too strongly at that. We set about assembling gliders in the shirt sleeve warmth, put in tie downs, and sat down to wait. Of the fellows who were to fly the 1-23D at Cowley that weekend, I was the only one who had flown there before, and that only briefly with Victor Berg in our old TG-2 on a memorable day three years earlier. So we wheeled out the ship and took it up for a few flights to get a feel of the terrain. About noon, Harry Byrt moved out the HP-11 and said "I'm going wave flying." The wind had slowly sneaked around to westerly, and though there were still no clouds, he obviously felt that the time was ripe. He took off to the west and did what was to become our standard tow procedure for the day - a climbing circuit over the field and then straight west towards the great rock wall - the Livingstone Range.

I was dressing to follow him in the 1-23, when he radioed back that he had released in 10 up and was climbing strongly. Les Passmore (who did a great job of towing in Don's Super Cub) pulled me in the same pattern, one circuit over the field and straight west. We passed through an area of good steady lift - the secondary wave, and had climbed to 800' asl (4000' above the field level), when we were halfway to the mountains. Soon after followed strong sink in which we lost 1000' and I had some trouble keeping the rope snugged up. Then as that great rock wall loomed close, the air began a steadily increasing upsurge, and I was away in lift so strong the vario was pegged. At 10,000' I put on my mask, and a few minutes later at 13,000' penetrated across the peaks hoping to find an even better wave ahead, but soon after doing a lot of sinking, I had to scoot back across the peaks to a position east of the Livingstone to recontact what was obviously the primary wave, and a good place to sit tight for awhile.

I tacked back and forth almost directly above a road about a half mile east of the Range, concentrating on staying in the 10-up stuff, but increasingly taking time to admire the ever widening panorama of prairies to the east and range after range of mighty peaks marching west to the Pacific. The good lift zone seemed relatively short - a three or four mile tack to the south brought a reliable drop off in lift (opposite the open pass). A tack back to the north for a few miles would end with a wavery drop off in lift, why I wasn't sure, as the ridge seemed to continue further north at almost the same height.

At 18,000' I was surprised to see Harry Byrt in his HP-11 about 500' below me, as I'd been looking for him constantly above. He, of course, was not desperate to hang on to a proven patch of lift, as I was, as he'd made his diamond flight a few years earlier, and he appeared to be ranging out much further on exploration forays than I. Soon after I also spotted Ron Innes in the Libelle, at about Harry's height. The lift was slowing down to about an average of 400' per minute now, and the question of whether a diamond gain could be made or not began to pre-occupy me. I was also laboring under the erroneous impression that a diamond gain was 19,104' (rather than the actual 16,104'). I was using 8,000' asl as my low point (although I knew it was somewhat below that point) and therefore had set 28,000' as my minimum required altitude.

At 21,000' I caught my last glimpse of Harry and Ron, and I had found some slightly improved lift on the northerly end of my tack so I continued in that direction. Twenty eight thousand feet still looked a long way off, and I was now totally preoccupied with finding better lift, or at least with squeezing everything out of it. At 25,000' the lift was down to 1 or 2 hundred feet per minute and fluctuated down to zero quite often in an irritating way. However, I was warm, felt alert, and still had 1600 lbs of O₂, and so determined to sit tight and wait for an improvement; for a pulse to come through and push the wave a little higher. It now seemed necessary to fly slower to stay in the meagre lift, and I continued further north of the field, indicating 35 mph, with the luff,



luff, luff of the pre-stall buffet often in my ears. At a point roughly twenty five miles north of the field, with the town of Claresholm directly east. I was at 27,300' indicated, still getting a meagre lift indication, but the glider would go no higher. Seven hundred feet short! I turned around and confirmed that I had a barograph trace, and continued north to near the Chain Lakes, finding no improvement. I had now been up about three hours, the O2 was down to 1300 lbs. I was beginning to feel cold and I was stiff, so - discouraged and feeling that I'd probably missed the diamond again, I dashed back south along a line of sink at 80-85 mph 'til I reached the airfield. Still at 18,000' or so, I put on a steep-side slipping turn, opened spoilers and spiralled on down over the field. I could see the other two sailplanes on the ground and felt disappointment for them as well.

To my surprise on landing, I was received with open arms and many questions: "Where have you been?", "we thought you'd got lost", "how high did you get?" "What's your barograph look like?" - "You've got it!" - "Another diamond!" "Ron got his too."

Great relief and satisfaction - the wave had been great after all, and suddenly I saw the whole flight in a new perspective. It had been a wonderful flight, and I could savor and remember with pure satisfaction all the wonderful things I had seen from that great vantage point.

Soon after (near 4 p.m.) Don Seller piled into the 1-23 and headed aloft. And by now Dan Pandur had the Libelle airborne again and reported good news on his way up.

The 1-23 had no radio, so we couldn't tell how Don was doing, but both he and Dan Pandur later proved to have had very fast climbs right up to 25,000'. Dan returned to the field just as the long mountain cast shadows of sunset darkened the field. We turned on the car lights for Don, who was still up, as it can be very hard to spot in the early evening shadows. He soon returned as well, with a big grin on his face, feeling all the better because he'd made his flight with his right arm in a cast.

We ended that day in a state of happy shock. Four new diamonds chalked up - on four attempts. What luck!, and as we rushed back to the motels for a much needed hot supper, even a flat tire halfway back didn't discourage things one bit.

Incidentally, just after I landed, those of us on the ground witnessed one of the more amazing bits of flying to be seen in these parts. André Dumestre of Calgary was completing a successful attempt to set a new French 100 km. speed to goal record (Black Diamond to Cowley). We spotted him a couple of miles out, lower than fifty feet, and it appeared certain that he would land a mile or two short. Somehow he kept his Libelle airborne, literally dipping below the rolly hillocks to the north, and miraculously re-appearing again - still just a few feet off the ground. He lifted the Libelle over the field fence and dropped it onto the runway, leaving us all slack jawed and positively disbelieving our eyes. His claim was for 82 mph. Additional Calgary pilots had arrived to be with us that day too: George Blunden in his Cirrus, Eric Mortis in the Dart, and Don Skinner with the Calgary club's Bergfalke.

Sunday, October 10, also dawned clear and warm, and the others in our group were eager to add to our diamond pot. However, no wind came that day. We sat in the eye of a calm, not even any thermals to liven things up. Maybe tomorrow!

Monday, Oct. 11, the wind had returned - more northerly and much colder. The air mass had changed too, as powerful wave conditions appeared to be evidenced by heavy dark rotor clouds with four visible repeating sequences from the first right up against the Livingstone Range, to the fourth well east of the Porcupines. Each was capped by wide, extensive lens cloud. It looked like perhaps a record day, one for Julien, and John, and Harry, and a day for the remainder of our party to pick up their diamonds.

John Pomietlarz took off first, climbed around once and headed for the mountain. Great black rotor clouds nearly obscured the high lenticulars. The tow was extremely violent, and the sink became so strong that John was forced to release and dash back to the field. Les Passmore, towing in the Super Cub had quite a ride too. He was thrown violently against the top of the cockpit when they hit the gusts, and he cut the top of his head. The earphones flew right off his ears, and as he put it: "I never experienced such a wallop of negative "G" before."

Following that disheartening attempt to contact the primary under the ominous looking rotor near the Livingstone, everyone on subsequent flights tried to contact the secondary wave, which today appeared to be just about over the airfield.

Jack Burrell in the Libelle, hooked on, and we could see him silhouetted against the high lenticular of the secondary as he radioed that he was at 18,000' up in the "cup" of the broad lenticular, and that he would have to move away or go into cloud. He moved south, hoping to contact a higher wave. John hooked on again as well, and eventually ended up at 25,000', forty miles south of the field, high over Waterton Park. Coming back partially into wind was a long slow process. Jack made it to about 21,000' asl, and when he came down was not quite sure whether he'd made his diamond or not, but got his gold for sure. The turbulence was increasing however, and the time to de-rig for the long drive back was near, so at 2 P.M. we pulled up stakes. The others would have to wait for another trip.

The diamond mine at Cowley had yielded four - possibly five new diamonds for the Edmonton Soaring Club, plus other diamond gains by John and Harry. We used to look with envy at the Black Forest gliderport - Mecca of wave flying in the U.S.A. However, our own recent experience at Cowley proves it to be one of the great wave flying sites in North America. And to think: one thousand miles of unbroken prairie lies between Cowley and Winnipeg, Manitoba. Give a fellow - say - 25,000' at 9 A.M. over Cowley and let him head at his best L/D east 'til he contacts thermals, say out over Maple Creek, Sask., on one of those days when thermals extent right across the prairies ... and ... whose to say what we couldn't do with the World distance record??

CLUB NEWS

PIONEER SOARING

Letter from Bob Nancarrow.

Pioneer Soaring at Tottenham, Ontario, has had a good year with the new club operation for solo pilots in conjunction with student pilots under instruction.

So far, Olda Pergel is the only student to solo this year, but several more will no doubt be on their own before the season ends early in November.

There have been 863 flights on the four gliders without accident & only a couple of minor incidents -- the flying discipline is good and this rubs off on the new students; so we hope to continue with a first rate safety record.

Gord Coleman has flown the BG-12 about ten times this year; none of the less experienced pilots have felt up to making the jump from the I-26. As a result, this glider is on the ground waiting for a pilot most of the time.

Some of the eleven students have had difficulty getting out to fly regularly which has slowed their progress a bit but our arrangements for booking aircraft and instructor's time in advance have worked out well, and will be continued next season. Many of the club members also book ahead, to be sure of a flight without having to be at the field for the whole day. There still always seems to be enough people around to move gliders, run wings, keep times and swap lies.

On the holiday weekend, Aug 2, and again September 25, we had visiting gliders in from York Soaring. Our field is about Silver distance east of York; so maybe Pioneer will become a regular stop for those looking for badges.

After flying was over on Sept. 18th, there was a corn roast at Howard Larkin's farm next to the

field and 29 members and friends were on hand. In addition to consuming corn, there was some 100 cc-tane punch on hand which no doubt helped the sing-song around the fire which followed.

The first season of club operation at Pioneer has been quite successful and a meeting is scheduled later this month to start planning for 1972.

RIDEAU GLIDING CLUB

Letter from Jim Sleeth.

The soaring season of 1971 has been both eventful and uneventful for the R.G.C. Uneventful in that the present economic problem has cut into the new students and passengers, and eventful in that the club has finally got a single-seater, a Cherokee II (CF-RCV) from Jorge Diez-Luckie, out of Pennsylvania, formerly of M.S.C. Due to present club rules, only the C.F.I. and the writer can fly it, so it's a pretty good deal as far as we're concerned.

No new solos or private licences so far this year, but this should be changed in October with two possibles in both categories. There's a new instructor in the club, yours truly, making a total of four instructors to 4 students.

The Labour Day Contest was a wash-out, with low ceiling and hazy conditions, no soaring at all. However it wasn't all poor and on Sunday evening we had a combination corn roast, weiner roast and booze up with 20-25 people going through five cases of 24s.

Auster owners unite, this seems to be the year of Auster problems, although ours aren't as bad as those of the London Club. We felt that an engine change was needed this year since the "old girl" was going through a quart of oil every two tows, most of which was found

RIDEAU GLIDING CLUB NEWS (Cont.)

on the bottom of the Auster at the end of the day. Well, London, all we can do is to thank good ol' Sir Geoffrey de Havilland for making that Upside-Down-Engine and giving us ALL this experience!

THE WINDSOR GLIDING CLUB notes -

By Joyce Preiss, Secretary.

1971 has been a successful year for the Windsor Gliding Club. After trying various sites in the past we finally found our present field in 1968 and it has proved to be an excellent choice. It is about 70 miles from Windsor, 20 miles from Chatham and 30 miles from Sarnia and the nearest small town is Dresden, which is six miles away. Although at first the field was rough and uneven with ant hills at strategic points, which caused take-offs and landings to be somewhat hazardous, after 4 seasons of considerable endeavour by club members and two sessions with a giant road grader, we now have a good runway & an attractive camping area. The latter is fenced in and glider trailers are parked there, in addition to camping trailers. This field has been successful in more than one respect and we are apparently sufficiently far away from the water on either side of us (Lake Erie, Lake St. Clair and Lake Huron) to usually avoid "lake effect" spoiling the soaring conditions. This season has been particularly good with an early start because of a very dry Spring.

Our club membership is rather small and has remained so for several years, but we have recently been attracting some new members from the surrounding communities. We hope to continue in this manner particularly since our enthusiastic

C.F.I., Henry Herrdegen, is never happier than when he has a new pupil up in the Ka-7. Consequently some club members have been considering the possibility of the club purchasing a single seater glider as the Ka-7 is pretty busy most of the time and it is not available or suitable for cross country flying. Other members think that it might be more practical to build a hangar for the Ka-7, but they seem to be in the minority!! At the moment we have not come to a definite conclusion, but it is a good sign and we will inform you later of the decision.

We have only a weekend operation and up to and including Oct. 11th, 1971, we flew on 49 days this year (29 good, 14 fair and 6 poor with no soaring). The winch has been in pretty good shape and faithfully towed aloft the Ka-7 for 399 flights for a total of 92.10 hrs. & 6 privately owned gliders for 199 flights totalling 144.23 hours. We have had 5 cross-country flights amounting to 330 miles and there have been 3 new solo pilots, 2 "C" badges, 1 silver distance, 1 silver altitude and 1 gold distance and diamond goal flight.

We hope to have a few more days of reasonably good flying weather before we have to cease operations for the winter. Then, as all glider pilots do, we shall get together at club meetings, etc. and plan how to accomplish next year that certain goal, altitude or duration, that somehow eluded us this season!

In closing we should like to extend our very best wishes for the New Year and better than ever flying for the next season.

GLIDING EXPERIENCE OF PILOTS ELIGIBLE TO BE SENT CANADA IN WORLD CHAMPIONSHIPS
TO BE HELD IN VRASC, YUGOSLAVIA
JULY 1972

NAME	AGE	HOURS GLIDER POWER	COUNTRY MILEAGE	F.A.I. BADGE	TRIANGLES			BEST C.I.M. Miles	BEST GOAL	BEST SPEED TO GL.	RECORDS HELD - PAST AND PRESENT	MAJOR CANADIAN CONTEST RESULTS	OTHER MAJOR CONTEST RESULTS	NOTES
					No. - 100 Km.	Best Speed - 200 Km.	1st - 100 Km.							
BLUNDEN, G.*			Ques onnaire	not returned.										
CHAROT, H.	41	630	150	Gold 2 Dia	8/85	6/70	1/51	-	212	196 M		4 (71); 11 (69); 15 (67); 8 (66); 12 (64) CANADIAN NATIONALS		
COOR, R.	42	1,150+	170	19,000 Dia.	7/122	3/94.5	6/53	-	327, 234, 194, 190	190 M	100 Km. Δ 70 mph, O & R. 327 miles Dist. 450 miles	2 (69) CANADIAN NATIONALS	U.S. Region 11 Cham- pion 1970. U.S. Reg. 12, 7th 71. U.S. Nats 70, 26th (Highest Std. Class) US Std.Cl. Nats. 71-12th suites).	2nd in 1969 Cdn Nat. not 3rd. (There was a correction sheet on Nationals re- sults).
DELEURANT, M	55	2,325	-	13,475 Dia.	10/78	8/69	10/71	-	189	337 M	76 mph Canadian Absolute Altitude	1 (60); 1 (65); 2 (68); 2 (69). CANADIAN NATIONALS		
FIRTH, J.	35			About 12/88.5 Dia	18/88	6/79.7	2/69		270	270 M	300 Km 60 mph 200, 300, 500 Km Δ s 200 Km. speed to goal Goal 270 m. Cdn. Terr.	4 (66); 6 (69) 3 of 4 days; 2 (71) 1st in Sports (Handicapped res.) CANADIAN NATIONALS	4 (65); 11 (68) U.S. Nats. Informal parti- cipant U.S. Std. Cl. Nats. 70 with std. HPII for 3 days: 1, 3, 1.	
NOVACS, K.	39	650	-	2,500 Gold 2 Dia.	11/42.6	1/48			300 Km	300 Km	86.7 Km 77 Km/h			
MUMIRI, R.	36	590	116	5,451 Dia.	2/72.5	2/81	2/72.5	1/ Slow	200 Km 300 "	300 Km	65 m/hr	9 (71); 5 (69); 10 (66). CANADIAN NATIONALS		
NARSDEN, D	38	435	300	6,000 Dia.	5/98.5	1/77	3/72		230 M. 208 " 186 "	418 M. 397 " 60 "	2-Place O&R (208m) Dist. 418 M. 100 Km Δ (61.3 m/hr; Speed to 500 Km. goal 54 m/h & 60 m/hr. Goal dist. 418 m.	10 (71); 5 (70); 7 (69); 15 (60) CANADIAN NATS. 1 (71); 1 (70); 2 (69); 1 (68) WESTERN		
MIX, W.	46	1,040	990	18,500 Dia.	720/110	10/78	8/109	1/86	466Kg 88 Km/ hr.	352Kg 108.5 Km/hr.	Alt. gain 24,333' Abs. alt. 31,833'. 300 Km goal 108.5 Km. 200 Km. Δ 75 Km/hr.	1 (66); 1 (62); 1 (61); 4 (57); 56. CANADIAN NATIONALS	U.S. Nat. 69, 60, 59 Worlds 70 (4th), 68; 63.	Best 10 flies total 5,258 Km. Best 20 av. 444.5 Km. Best 30 av. 393 Km.
LOCKHARD, G.				Questionnaire not returned.										
TROUNCE, P.	48	500	200	3,000 Gold 2 Dia					300 Km	500 Km		1 (68); 5 (66) CANADIAN NATIONALS		
WEBB, D.	41	1,420	205	17,100 Dia.	23/95	16/85	7/109	1/78	280 M 187 @ 195 @ (100K/h) (Four times) (47 m/h) Cats C.	325 M 300 Km 300 Km 53.5mph 53 mph	300 Km Δ 47m/h 1963. Dist. 396 miles " CANADIAN NATIONALS			
MERENBURG, H	32	500	200	2,500 Gold 1 Dia	3	2			180 mi.	187 mi.		Novice champion 65 Champs Team in 66. Top 3 Cats' Grade flight at 1970 Contest 302 mi.		Nominated by J. Firth and P. Trounce.
YEATES, C.	44	1,410	320	20,320 Dia.	29/87	14/84	4/73		233, 205, 196, 185	355 M 333 " 325 " 272 " 246 "	500 Km 48 m/h 325 mi 51.6m/h 100 K Δ 54.4m/h " 71. 200 K Δ 51.8m/h " 69. 59.2m/h 200 Km 48 m/hr to 1968.	1 (67); 3 (66); 3 (64). CANADIAN NATIONALS.	58 Worlds 18th. 63 " 9th. 65 " 9th. 68 " 9th.	

*Unfortunately the request for personal gliding data was not received by George.

W A N T E D

BY NEW S.A.C. MEMBER CLUB:

T W O P L A C E G L I D E R

Contact: Nova Scotia Soaring Club,
John Trouillot,
387 Dalcrombie Drive,
New Glasgow, Nova Scotia
(Tel: 902-752-0446)

S.A.C. MEMBER-CLUB SOARING SITE DIRECTORY:

It is planned to insert, in future issues, maps showing the locations of various Club flying sites, with names and telephone numbers of a couple of club contacts. The first two of these are shown in this issue, i.e. Windsor Gliding Club and Rideau Gliding Club. (See p. 23).

Will each Club please arrange to pencil a rough sketch (similar to those shown) showing its flying site location, along with two contacts. Please forward to W.J. Piercy, 184 Churchill Crescent, Kingston, Ont., who will arrange to sketch them on an 11 x 17" sheet for inclusion in 'Free Flight'. At the same time, please indicate if you wish copies of your Club's location map, as these can be run off at the same time as the issue goes to press. The cost will be \$2.00/100 copies.

W.J. Piercy,
Director

HISTORICAL GLIDERS

The glider illustrations shown on the next two pages are reproduced from Air Trails World's Great Aircraft, Summer 1971. These illustrations are copyright(c) 1971 by The Condé Nast Publications Inc., and successor company, Petersen Publishing Company, 551 Fifth Avenue, New York, N.Y. 10017. We have obtained the kind permission of Petersen Publishing Company, publishers of Air Progress and Air Trails, to reproduce these illustrations in 'Free Flight'.

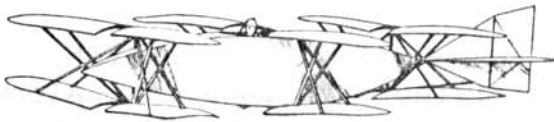
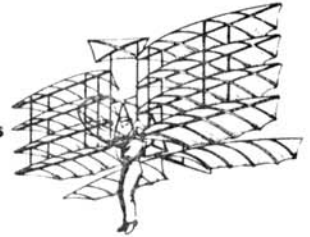
W.J.P.

E A R L Y B I R D S :



Otto Lilienthal's 1895 glider.
(Ger.) Produced valuable data.

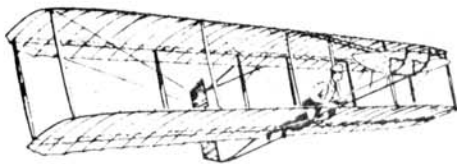
U.S. 1896—Chanute's
first glider was this
multi-winged affair.



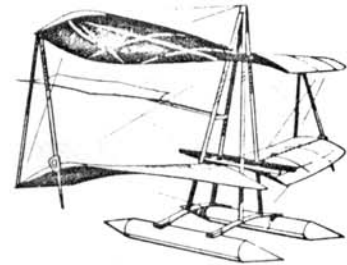
Octave Chanute (U.S.) biplane glider of 1896.



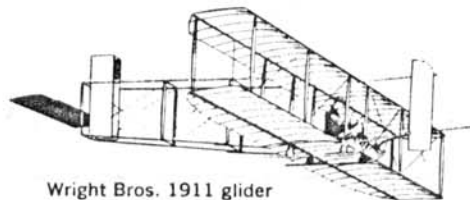
Biplane hang-glider (Chanute).



Wright Brothers 1902 glider;
controls mechanically actuated.



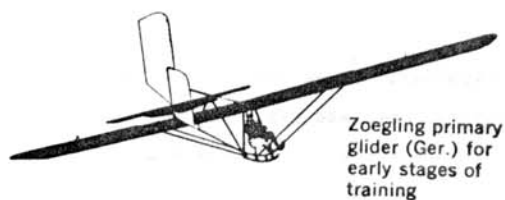
Galaudet glider of 1897
(U.S.). Used for study of
cambered (curved) airfoils



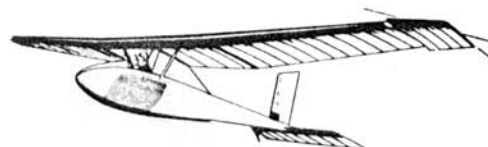
Wright Bros. 1911 glider
made 9-min 45-sec soaring flight.

HISTORICAL GLIDERS (CONT'D)

P E R I O D 1919 - 1926:



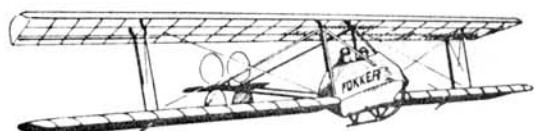
Zoebling primary glider (Ger.) for early stages of training



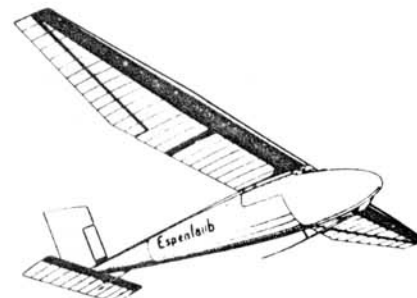
Early German sailplane; Ferdinand Schultz



Avro motor-glider (G.B.) 3 1/2-hp



Fokker glider (Hol.). Built from fighter parts



Esenlaub high-performance sailplane (Ger.)

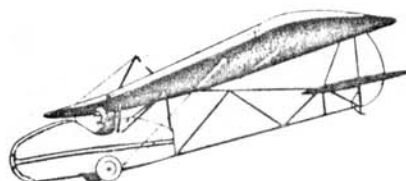
P E R I O D 1927 - 1938:



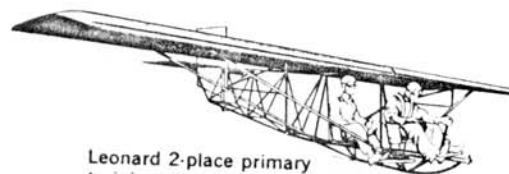
Pruefling glider (Ger.); primary training



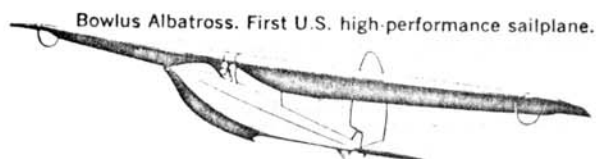
Kegel secondary glider (Ger.). Type known as Pruefling. 2-seat version



Bralley Skyport (U.S.). Typical modif. of primary glider to better performance.



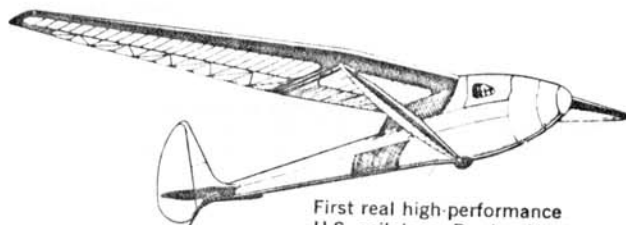
Leonard 2-place primary training glider (U.S.)



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- Ka-6CR With enclosed trailer and instruments. Elevator trim; Modified Wortmann airfoil; Airpath compass; Cook-compass; Calibrated air-speed indicator; Sensitive altimeter, 5 m Winter vario; PZL total energy compensated vario with speed ring; Crossfell electric-audio vario; Electric turn and bank; Winter inclinometer.
Price: \$4,500, or other considerations.
Contact: Lorant Jenvay, P.O. Box 372, Newcastle, Ont.
Telephone: (416) 987-4903-Home; or (416) 623-3342 - Bus.
-
- Ka-6CR With modified Wortmann airfoil, cal. A.S.I., 35K altimeter, comp. 10 Kn. PZL Vario, comp. 2 Kn. Winter Vario, speed ring, B6 G-meter, Airpath Compass, Al4 O₂ Reg. with press. gauge and blinder, Sierra 659 Posi-Fit Mask, 22 cu.ft. bottle, glide calculator, 2 camera compet. mount, new Radair 10S, mic, gell-cell battery, charger. 10S Ground Station and gell-cell battery, 5/8 wave mobile whip, Ka6 type parachute, 2 canopies, fuselage and wing stands (2 man-assembly). Custom wing covers, excellent enclosed trailer (new tires and new paint), Contest No., C of A till May 72.
Price: \$4,800 Canadian. Contact: Peter Lamla, 5904 Chester St., Vancouver 15, B.C. Phone: (604) 325-2570.
-
- HP-14 Wings filled, 100 lbs. water ballast, enclosed metal trailer, basic instruments and Crossfell vario. Price: \$6,500.
Contact: David Marsden, 3920 Aspen Dr. West, Edmonton 73, Alberta.
Telephone: (403) 434-8859.
-
- BG-12B (CF-PSQ) Excellent workmanship, just repainted, tangerine and white. Available for inspection at Pioneer Soaring, Tottenham, Ont. Ship is rarely flown as it does not fit into our operation. Would consider trade for ship with more gentlemanly characteristics which are not such a large step beyond the 1-26's forgiving traits.
Price: \$2,500 or reasonable offer.
Contact: Pioneer Soaring Ltd., RR2, Tottenham, Ont. Tel: (416) 936-4367.
-
- L-SPATZ-55 (CF-AKQ) Excellent performance for modest cost. Complete with instruments, parachute and trailer with covers. Price: \$3,600 firm.
Contact: London Soaring Society, Box 773, Stn. B, London, Ontario.
-
- CIRRUS Enclosed trailer, with or without instruments, radio. Reason for selling: Standard Cirrus on order. Contact: George Blunden, 6127 Centre Street S., CALGARY, Alberta. Telephone: (403) 252-2271
-
- BG-12A (CF-RDJ). Very good workmanship and finish, includes PZL, Crossfell, full high-altitude oxygen system, artificial horizon, Winter barograph, parachute, and an excellent compact stressed-skin plywood trailer. Ship is hangared at the Gatineau Gliding Club (Pendleton A/P). Price: \$3,500 or best offer. Contact: Larry Rowan, RRL, Kars, Ont. Phone (613) 489-3466, or Tony Burton, Apt. 3, 122 McIntyre St. E., North Bay, Ont. (705) 474-9860.
-
- SCHWEIZER 1-23 Very good condition, new paint, complete instrument panel, parachute and trailer. Sell share or complete. Contact: Peter Gaettens, R.R.2, Markham, Ontario. Telephone: (416) 297-2465.
-
- HP-11A (CF-UKB). Shiny aluminum (no paint), retractable wheel, basic instruments, parachute. No trailer. Firm price: \$4,500.
Contact: Jim Carpenter, 37 Coulson Ave., Toronto 7, Ont. (416) 483-0969.
-
- HP-11 Retractable wheel, instruments and aluminum covered trailer. Wings filled; colour: white with blue trim. Any offers over \$5,000 will be considered.
Contact: Charlie Bonds, 2101 Barsuda Drive, Mississauga, Ontario.
-
- SB-7(M) 16.5 metre, all fibreglass; L/D 42:1 at 67 m.p.h. Complete with enclosed trailer, instruments and parachute. Immaculate condition: \$7,000 o.b.o. Contact: Joe Mandla, 3320 Beauclerk, Montreal, P.Q. (514) 256-2125.
-
- SHK-1 In top condition. Instruments and custom trailer. Price: \$6,200.00.
Contact: Henri Chabot, 565 Poirier St., Ste-Dorothee, P.Q., or Kurt Kovacs, 285 Samson Place, No. 3, Chomedey, P.Q.
-

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PUBLICATIONS

It is regretted that exchange rate fluctuations and ever increasing postal rates have forced yet another increase in the price of books imported from England. Revised prices are as follows:

British Gliders and Sailplanes 1922-1970 (Ellison)	\$8.85
Cloud Studies in Colour (Scorer & Wexler)	7.10
Cloud Study (Ludlow and Scorer)	4.75
Elementary Gliding (Blanchard)	1.60
Eye of the Wind (P. Scott's autobiography)	1.60
Flying Training in Gliders (Ann & Lorne Welch)	2.90
Gliding Book (Seven experts)	5.70
Introduction to Meteorology (F. Cole)	12.60
Know the Weather (Royal Met. Society)	1.05
Man Powered Flight (K. Sherwin)	5.25
* Meteorology for Glider Pilots (C. Wallington)	7.35
* New Soaring Pilot (Welch and Irving)	8.40
Story of Gliding (Welch)	6.30
Theory of Flight (Stafford Allen)	3.70
Theory of Modern Cross Country Gliding (Weinholtz)	4.75
Where No Birds Fly	2.60

* Particularly recommended

Note that Gliding, by Piggott, is out of print. An announcement will be issued when it is again available.

Sailplane and Gliding is now \$6 a year (6 copies). Subscriptions all expire with the Jun/July issue so please pro-rata your subscriptions for the balance of the current year.

Mail cheques to: T.R. Beasley, P.O. Box 621, St. Laurent, Montreal 379, P.Q.

FOR SALE (CONTINUED)

BERGFALKE 11/55 - CF-UVO - 1 share as I am leaving the Winnipeg area. This glider is well maintained and in excellent condition. Based at Winnipeg Gliding Club. A covered trailer is part of the glider equipment. This aircraft took the 200 Km. triangle Canadian Record in June 1969. Contact: Gerry McArthur, 4239 Main St., Winnipeg, Man. R3C 2E4, or Phone: WPG 334-6741.

All advertising in 'Free Flight' of personal equipment (your own glider, instruments, parachute, oxygen equipment, radio, etc.) is FREE as a service to S.A.C. members. For non-SAC members and for commercial advertising (aviation supplies and aircraft sales by dealers) a charge of \$8.00 is made for a full page. (Ads of 1/2-page at \$4.00 and 1/4-page at \$2.00 are acceptable). Cheques for the latter should accompany the advertisement and be made payable to S.A.C.

BOOK REVIEW

BRITISH GLIDERS and SAILPLANES, 1922-1970. By N. Ellison. The author of this book has obviously spent a great deal of time on researching his subject. The book literally lists all the gliders and sailplanes built in Britain during the period covered; be they glorious successes or dismal failures.

I do not believe the book will appeal to every pilot in Canada, but it certainly deserves a place on the bookshelves of any one who is seriously interested in technical progress and/or those who are building up a soaring library.

About 60% of the book's 296 pages are devoted to the type by type listing, with line drawings, with the balance of the book briefly covering the history of gliding in Britain and the fates and fortunes of the gliding industry.

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HEARD OF ANY GOOD RACKETS LATELY?

On a recent visit to Montreal Customs to clear some glider parts, a person was told he needed two copies of one of the lists of paper. Oh yes, Customs had a copier and could make a copy; which they did for \$2.00 a single page. Who said libraries should not charge 10¢?

T.R. Beasley

NEXT ISSUE OF 'FREE FLIGHT'

It is hoped to publish the next issue early in January even though this one is late. Therefore, please send in your Club news, articles or advertisements as soon as possible. Club news received recently from Calgary, Edmonton, Montreal, Winnipeg and Vancouver will be featured in the January 72 issue.

Since this issue is late and Christmas is almost upon us, may I take this opportunity on behalf of the SAC Directors and Officers, to wish all members and friends throughout the World, a very Merry Christmas and Happy New Year.

Sylvia Webb, Editor

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RESOLUTIONS?? -- AND DATES TO REMEMBER IN THE NEW YEAR:

S.A.C. Annual General Meeting: - Mid-March, 1972, in Peterborough, Ontario.

- Action items for above meeting:
1. Mail Voting (Ref. page 2 of this issue). Club secretaries please complete letter and return it to S.A.C. as soon as possible.
 2. Notices of Motion - Do YOU have any? Send them to Dave Marsden, SAC President.
 3. Committee Chairmen's Reports - Please write these reports while gliding matters are fresh in your mind. It would help to publish all such reports AHEAD of the AGM (March 1st issue!)

1971 FLYING STATISTICS REPORT:

Please have your Club Statistician start preparing them now. (See FREE FLIGHT issue 4/71, June-July 71, for set-up). When complete, send them to Mr. R.C. Gairns (Address on Chart).

TROPHIES (Presented at AGM):

1. BEST INSTRUCTOR - C.F.I.s send in your nominees to Walter Piercy
2. BEST FIVE FLIGHTS - Pilots - send in flights to Bob Gairns. (Formula on p.2 of Issue 2/71, Feb-March 71, 'Free Flight').

INTERNATIONAL TEAM: CAN YOU HELP?

1. By crewing?
2. By locating suitable aircraft and equipment for the team's use in Yugoslavia. Please contact the pilots or S.A.C. Committee (P.Trounce/T.Beasley).

CANADIAN NATIONALS 1972: July 25th to August 3rd, 1972, at SOSA's Rockton A/P.

CLUB SOARING SITE DIRECTORY:

Send sketch of your club's location, together with two contacts, to Walter Piercy. (Ref. p.7 this issue).

Ed.

LOCATION OF AIRFIELDS OF MEMBER CLUBS

October, 1971

WINDSOR GLIDING CLUB

c/o H. Preiss,
2038 St. Anne,
Tecumseh, Ontario.

Club Contacts:

H. Preiss, Tel. 519-735-3725

H. Herrdegen, Tel. 519-256-4456

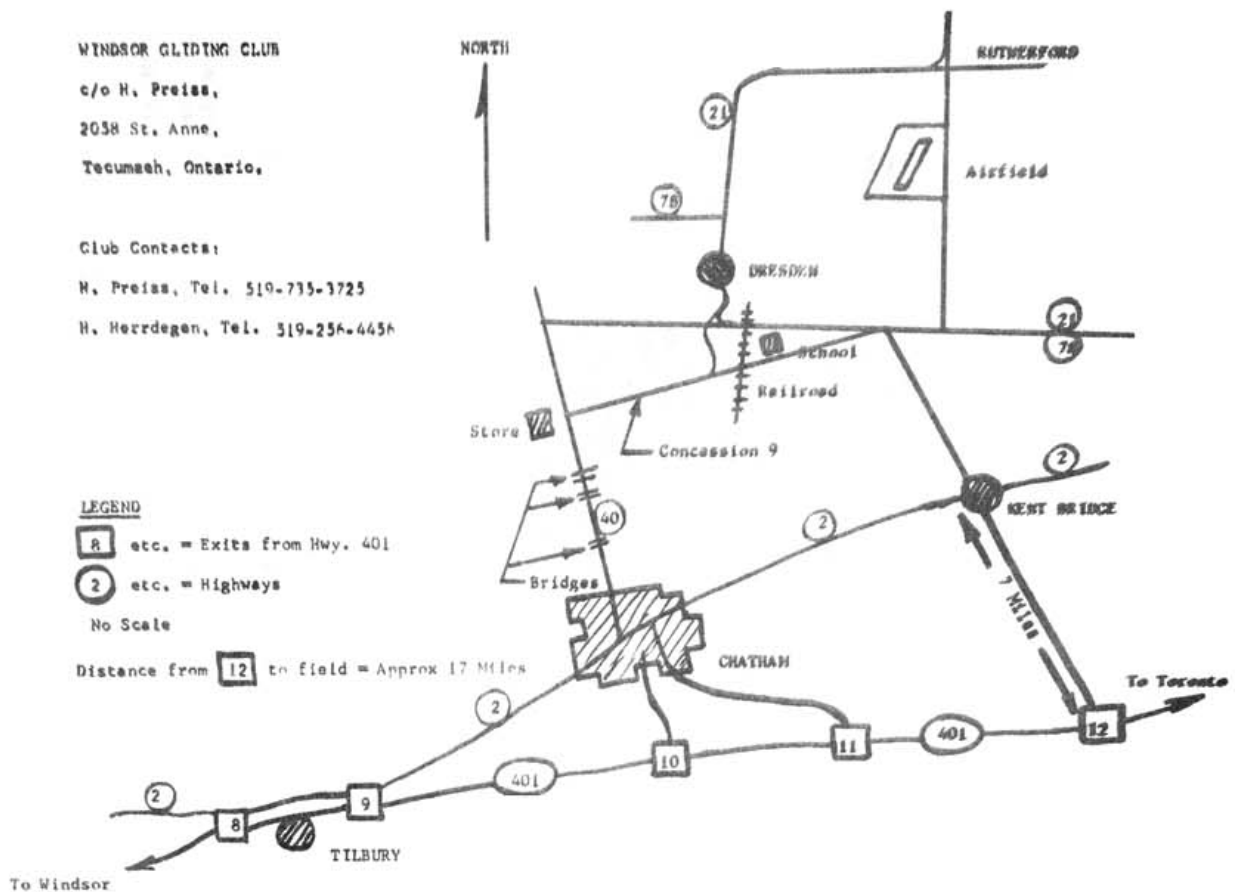
LEGEND

[8] etc. = Exits from Hwy. 401

(2) etc. = Highways

No Scale

Distance from [12] to field = Approx 17 Miles



RIDEAU GLIDING CLUB

c/o H. Janzen,
172 College Street,
Kingston, Ontario.

Club Contacts:

H. Janzen, Tel. 613-546-9281

J. Dennis, Tel. 613-544-2277

LEGEND

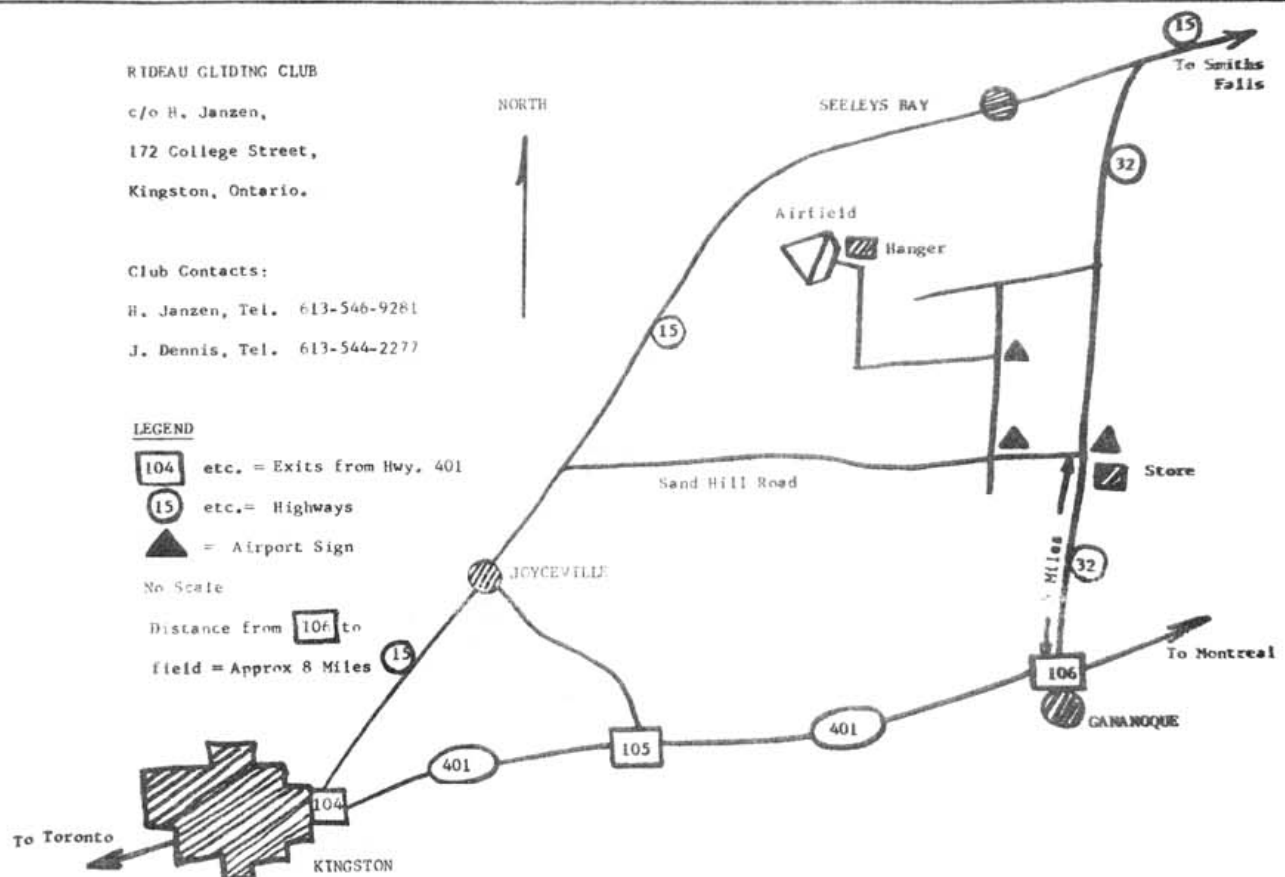
[104] etc. = Exits from Hwy. 401

(15) etc. = Highways

▲ = Airport Sign

No Scale

Distance from [104] to
field = Approx 8 Miles



SOARING ASSOCIATION OF CANADA

List of Member Clubs

1. QUEBEC & MARITIMES ZONE

Air Cadet League (Quebec), c/o E. Sourisseau, Box 400, Westmount, Montreal 215, Quebec.
 Appletonian Gliding Club, P.O. Box 271, Sherbrooke, Quebec.
 Buckingham Gliding Club, 1464 McLaren Street, Buckingham, Quebec.
 Champlain Soaring Association, 11655 Laforest, Montreal 356, Quebec.
 Labrador Gliding Club, c/o Capt. B. Irwin, ICAG H.Q., CFPO 5000, Belleville, Ontario.
 Montreal Soaring Council, P.O. Box 1082, St. Laurent, Montreal 379, Quebec.
 Nova Scotia Soaring Club, c/o Mrs. D. W. Byers, R.R. #2, Tatamagouche, Nova Scotia.
 Quebec Soaring Club, P.O. Box 276, Quebec 10, Quebec.

2. ONTARIO ZONE

Air Cadet League (Ontario), c/o R. E. Nevin, 1107 Avenue Road, Toronto 12, Ontario.
 Air Sailing Club, P.O. Box 618, Station "W", Toronto, Ontario.
 Algoma Soaring Club, P.O. Box 921, Sault Ste. Marie, Ontario.
 Belleville Flying Club (1960), c/o J. Marker, P.O. Box 322, Belleville, Ontario.
 Bomberich Soaring Inc., P.O. Box 35, Deep River, Ontario.
 Caladen Gliding Club, R.R. #1, Erin, Ontario.
 Central Ontario Soaring Association, P.O. Box 762, Peterborough, Ontario.
 Chatham Air Cadet Gliding Club, 561 Lacroix Street, Chatham, Ontario.
 Erin Soaring Society, P.O. Box 23, Erin, Ontario.
 Galtineau Gliding Club, P.O. Box 883, Station "W", Ottawa, Ontario K1P 5S5.
 London Soaring Society, P.O. Box 777, Station "W", London, Ontario.
 North Bay Gliding Association, P.O. Box 1612, Hornell Heights, Ontario.
 Pioneer Soaring Inc., R.R. #2, Tottenham, Ontario.
 Rideau Gliding Club, c/o H. Jensen, 172 College Street, Kingston, Ontario.
 SOCA Gliding Club, P.O. Box 654, Station "W", Toronto 7, Ontario.
 Toronto Soaring Club, P.O. Box 192, Station "W", Toronto 3, Ontario.
 Windsor Gliding Club, c/o R. Preiss, 2058 St. Anne, Windsor 35, Ontario.
 York Soaring Association, c/o W. Chmela, 10 Courtwood Place, Willowdale, Ontario.

3. PRAIRIE ZONE

Lakehead Gliding Club, P.O. Box 161, Station "W", Thunder Bay, Ontario.
 Melville District Gliding & Soaring Club, P.O. Box 961, Melville, Saskatchewan.
 Red River Soaring Association, P.O. Box 1074, Winnipeg, Manitoba.
 Regina Gliding & Soaring Club, c/o W. Reed, 3075 Angus Street, Regina, Saskatchewan.
 Winnipeg Gliding Club, P.O. Box 1255, Winnipeg, Manitoba.

4. PACIFIC ZONE

Albert Valley Soaring Association, c/o D. Pearson, Stirling Arm Drive, R.R. #3, Port Alberni, British Columbia.
 Cold Lake Soaring Club, c/o Maj. N. Romansen, P.O. Box 1809, C.F.B. Cold Lake, Medley, Alberta.
 Co-Nim Gliding Club, P.O. Box 5922, Station "A", Calgary, Alberta.
 Edmonton Soaring Club, P.O. Box 293, Edmonton, Alberta.
 Kamloops Soaring Club, c/o D. Lukins, 627 Alberni Street, Kamloops, British Columbia.
 Red Deer Soaring Association, P.O. Box 963, Red Deer, Alberta.
 Vancouver Soaring Association, c/o V. Shorbridge, 1849 Burrill Avenue, North Vancouver, B.C.
 Van Isle Gliding Association, c/o J. West, 1168 High Rock Place, Victoria, B.C.
 Yukon Soaring Association, 508 Hanson Street, Whitehorse, Yukon Territory.

October 14, 1971

SOARING ASSOCIATION OF CANADA
Box 1173, Stn. B, Ottawa, Ont. K1P 5R2

List of Supplies

ITEM NO	D E S C R I P T I O N	PRICE
1.	F.A.I. Soaring Badges - "A" and "B"	\$ 2.50 ea.
	(a) Button - Screw Back "... .."	3.00 "
	(b) Button - Clutch Back (Tie Back) "... .."	3.00 "
	(c) Pin - with Safety Catch "... .."	--
2.	F.A.I. Soaring Badges - "C" & above (Prices in Item 5)	25(\$/51)
3.	" Soaring Awards - Rules & Procedures (Booklet)	1.50 ea.
4.	" Sporting Code (Booklet) "... .."	0.10 "
5.	S.A.C. Application for F.A.I. Awards (4 pages) "... .."	0.75 "
6.	" Instruction Manual, Part I, Instructor's Guide	0.50 "
7.	" Instruction Manual, Part II, Air Instruction	
8.	" (Air Instruction Cards). These are incorporated into Item 7 - in addition, 11 plastic-laminated cards (5" x 7.1/2") for the 14 Stages are available "... .."	3.00 set.
9.	S.A.C. Student Progress Sheet (4" x 12" sheet) "... .."	0.01 ea.
10.	" Tephigram & Weather Briefing (Booklet) "... .."	0.25(\$/51)
11.	" Weather Briefing Form N-052 (8.1/2" x 11" sheet)	No charge.
12.	" Application for Official Observer (1 sheet) "	
13.	" Blazer Crest (Navy Blue) "... .."	\$ 6.50 ea.
14.	" Decal "... .."	0.25 "
15.	" Tie (Navy Blue with Glider Design) "... .."	2.75 "
16.	" Cap (Red, Green or Blue with White crest) "... .."	2.50 "
17.	" Glider Pilot Log Book (a) Single Copy "... .."	1.50 ea.
	(b) Qty. of 25 or more "	1.25 "

NOTES:

- Item 2 available ONLY from: C.M. Yeates, 33 Simcoe Place, HALIFAX, N.S.
- Item 5 available ALSO from C.M. Yeates.
- Items 6, 7 and 8 make up the S.A.C. Instruction Manual.
- Make all cheques payable to: S.A.C.