

FREEFLIGHT



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Freeflight

Issue 1/76 January/February 1976

Official Publication of the Soaring Association of Canada



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Tentative deadlines for future issues

Issue 2/76 - Mar./April February 12,'76
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MOVING ?

Send your change of address to:
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786 Chapman Blvd.,
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K1G 1T9

Editorial

Four pilots, twelve crew and a team manager will go to Rayskala, Finland to represent Canada in the 15th World Gliding Championships. The pilots will have the prestige of representing their country in one of the few remaining truly amateur sports. All of the team will enjoy the unique experience of participating with the best in the world — and in addition to the competition there will be the novelty for most of travelling in a strange country.

This is not a vacation however; there will be practice days, long flights, hours waiting for weather, and probably long retrieves over strange roads in rented cars. Our team members will be away from family and work; probably using up vacation time or on a leave of absence. They will all be dipping heavily into their bank accounts to finance the trip because only a small portion of the cost is borne by government assistance.

An estimated \$30000. will be needed to cover fees, glider and car rental, travel and living costs.

Having earned a place on the Canadian team, our pilots (and crew) also have to pay for the privilege of carrying our colours into the contest. To do this every two years is quite a financial burden.

Since competition flying is a recognized part of our sport, shouldn't international competition be supported, so that the best possible team can afford to go. Fund raising ideas are needed to help finance this project to encourage pilots who have the competitive urge to strive for a place on future teams. There is not much incentive for younger pilots if making the team means going into debt.

World wide inflation has pushed the cost of competitions so high perhaps the World Contest should be held every four years like the Olympic Games. Soaring was demonstrated at the 1936 Olympics in Berlin and was accepted for the 1940 games which were never held. Maybe this approach to world com-

petition should be revived. The reduction in frequency may give an organization like S.A.C. sufficient time to organize the funding for the team thus reducing to a minimum the amount of personal financing required by the team members.

With about 40 competitors in each contest, Canada has not done badly in recent years. Last time in Australia we placed 18th; about half way down the list in some pretty fast company. In 1972 in Yugoslavia we had a 10th place and in Marfa in 1970 Wolf Mix placed 4th which was the best ever for a Canadian entry.

In May the "Fly for Canada" program will be run to help raise money for our team; if you have other ideas for fund raising contact your Regional Director or the World Contest Committee. If every S.A.C. member would just contribute the cost of one tow there would be enough to cover our pilot's fees and glider rental. Give something now to support our team in Rayskala - every little bit will help!

LIST OF MEMBER CLUBS

Quebec & Maritime Zone

Air Cadet League (Que), 5726 Sherbrooke St. W., Box 340, Montreal, P.Q. H4A 3P6
Appalachien Soaring Club, Box 271, Sherbrooke, P.Q.
Ariadne Soaring Inc., 735 Riviere aux Pins, Boucherville, P.Q. J4B 3A8
Buckingham Gliding Club, c/o J. Bisson, 302-D-150 Gerber Blvd., Gatineau Point, P.Q.
Champlain Soaring Association, 111 Mr. Tache, Boucherville, P.Q. J4B 2K2
Montreal Soaring Council, Box 1082, Montreal, P.Q. H4L 4W6
Missisquoi Soaring Association, Box 189, Mansonville, P.Q. J0E 1X05
New Brunswick Soaring Association, c/o Dr. A. Dobson, 521 Blythwood Ave., Riverview, N.B. E1B 2H3
Quebec Soaring Club, Box 9276, Quebec, P.Q. G1V 3B1

Ontario Zone

Air Cadet League (Ont), Mr. H. Bruhlman, 1107 Avenue Rd., Toronto, Ont. M5N 2E4
Air Sailing Club, Box 2, Etobicoke, Ont. M9C 4V2
Base Borden Soaring Group, c/o 71 Sangro Loop, CFB Borden, Ont. L0M 1C0
Bonnechere Soaring Inc., Box 1081, Deep River, Ont. K0J 1P0
Caledon Gliding Club, R.R. #1, Erin, Ont.
Central Ontario Soaring Association, Box 762, Peterborough, Ont.
Chatham Air Cadet Gliding Club, 561 Lacroix St., Chatham, Ont. N7M 2X1
Erin Soaring Society, Box 523, Erin, Ont. N0B 1T0
Gatineau Gliding Club, Box 883, Station B, Ottawa, Ont. K1P 5P6
Huronia Soaring Association, c/o M. Badior, 435 Hugel Ave., Midland, Ont. L4R 1V4
Kawartha Soaring Club Inc., R.R. #4, Omemee, Ontario.
Lakehead Gliding Club, Box 161, Station F, Thunder Bay, Ont.
London Soaring Society, Box 773, Station B, London, Ont. N6A 4Y8
Provincial Motorgliding & Soaring Association, R.R. #2, Blackstock, Ont. L0B 1B0
Rideau Gliding Club, c/o H. Janzen, 172 College St., Kingston, Ont. K7L 4L8
SOSA Gliding Club, Box 654, Station Q, Toronto, Ont. M4T 2N5
Toronto Soaring Club, Box 856, Station F, Toronto, Ont. M4Y 2N7
Windsor Gliding Club, c/o H. Preiss, 2050 St. Anne, Windsor, Ont. N8N 1V7
York Soaring Association, Box 660, Station Q, Toronto, Ont. M4T 2N5

Prairie Zone

Air Cadet League (Man), c/o Capt. G. Evans, 364 Duffield St., Winnipeg, Man. R3J 2K2
Air Cadet League (Sask), Mr. J.J. McDonnell, Box 5099, Regina, Sask. S4P 3M3
Red River Soaring Association, Box 1074, Winnipeg, Man. R3C 2X4
Winnipeg Gliding Club, Box 1255, Winnipeg, Man. R3C 2Y4

Alberta Zone

Air Cadet League (Alta), c/o H.M. Fowler, 23 Grafton Dr. S.W., Calgary, Alta. T3E 4W1
Cold Lake Soaring Club, Box 1714, Medley, Alta. T0A 2M0
Cu-Nim Gliding Club, Box 2275, Calgary, Alta. T2P 2M6
Edmonton Soaring Club, Box 472, Edmonton, Alta. T5J 2K1
Regina Gliding & Soaring Club, c/o 2117 Grant Rd., Regina, Sask. S4S 5C9

Pacific Zone

Air Cadet League (B.C.), c/o Capt. R. Lacerte, 8908 Glenwood St., Chilliwack, B.C.
Albion Valley Soaring Association, Box 201, Port Alberni, B.C. V9Y 7M7
Comox Gliding Club, Box 238, Lazo, B.C. V0R 2K0
Okanagan Soaring Association, Box 1135, Kelowna, B.C. V1Y 7P8
Vancouver Soaring Association, Box 3651, Vancouver, B.C. V6B 1Z1
Van Isle Soaring Association, c/o R.J. Hansen, R.R. #2, Courtenay, B.C.
Wide Sky Flying Club, Box 6931, Fort St. John, B.C. V1J 4J1

Perception is the Name of the Game

by Elemer Balint

Some time or other all instructors encounter students with problems of co-ordination, plain ham-fistedness and lack of judgement. These students are often tense, they sit rigid and seemingly fail to develop the required feel for relaxed authoritative handling of the glider. Their decisions are late, often wrong and a tendency for overcorrection is evident.

In such cases the nagging question is whether the student is really hopeless and should be advised to give up gliding or has the instructor failed to understand the student's particular problem.

In most gliding clubs a student often receives instruction from several instructors in a random sequence and the instructors seldom have sufficient time to talk or listen to the often shy student. Thus the instructor tends to judge the student on account of his competence in flying and if deficiency is noted, demands more practice.

Practice may be needed but it will be useful only if it is of the right kind. First of all the instructor must find out the true causes for

the apparent lack of co-ordination. If a student exhibits reasonable co-ordination in other fields than flying, it is an indication that there is no inherent problem with his physical constitution. Clearly the problem is to how to teach him to apply his available ability to the flying environment. Therefore the instructor should find out more about the student's other activities and skills which involve co-ordinating dexterity.

Should the results of this investigation be positive, chances are that the problem is not so much of co-ordination per se but rather that of perception.

I would like to postulate that good flying ability is the result of good perception, and that fortunately for the student, it is possible to teach perception. First of all, in order to free the student of unnecessary distraction the complete instrument panel should be covered. Before take-off the three basic sensory inputs, i.e. visual orientation, tactile (seat of the pants and control feel) and audio (wind noise or the lack of it) should be clearly explained to the student. Probing the student with questions and making sure he understood is of prime importance.



Thus prepared the student should be taken to a high tow (4000' - 5000') in order to ensure an unhurried lesson. The first part of the lesson should be a demonstration by the instructor of the three main sensory inputs and how to perceive them.

1. VISUAL

- (a) Correct reference to the horizon for minimum sink, maximum L/D, never exceed velocity and stall condition. (Pitch control)
- (b) Correct reference to a distant point for yaw control.
- (c) Correct reference to the horizon for the control of roll.

2. TACTILE

- (a) Point out the feel of sitting straight if the flying attitude is correct both in straight and turning flight.
- (b) Demonstrate the lightening of the stomach feel at the stall.
- (c) Demonstrate the feel of imbalance in slipping or skidding turns.
- (d) Demonstrate the change of feel and the changing amount of control deflection required with changing velocity.

3. AUDIO

- (a) Correlate wind noise to visually monitored pitch control (see para. 1 (a))

- (b) Correlate source of noise (left or right) to skid or slip, monitored by tactile sensory input (seat of pants).

Provided sufficient time remains available, the student should be required to reproduce the above points in sequence and describe clearly for the instructor his visual points of reference and his tactile and audio sensory perceptions. The above exercises should be practised until the student shows reasonable competence without the reliance on any instruments whatsoever and is able to reproduce any sensory input condition at will or on request.

Once the required standard is achieved by the student, a similar sequence during aero-tow should be repeated with a greater emphasis on visual perception, since during aero-tow, visual perception is the primary sensory input.

Improvement of sensory perception can also be a great help in circuit judgement. Since no two circuits are exactly alike on account of changing conditions of wind strength and direction, that last minute thermal or sink, or other traffic, reliance on the altimeter often confuses the beginner pilot. Instead of teaching him to enter circuit at a standard altitude given

in numbers, his attention should be focused on the much more relevant non numerical values such as, "Am I near enough to the field?" or "Am I high enough to perform a proper circuit?" Once in the circuit the questions posed should be, "Is my rate of sink just right, too much or too little?"

By this time the student having been through the indoctrination of flying by his senses rather than by chasing instruments will have his eyes "out of the cockpit" and being less busy, will be in a much more relaxed frame of mind. Since in this condition he will have less items to monitor, more time will be available to assess the situation and more likely than not he will arrive to a correct decision; in fact his judgement will be better.

Flying by the numbers may be easy for the experienced pilot who already developed his flying skill to the stage where there is no need for him to pay attention to the handling of his machine. In the case of a beginner however, preoccupation with numbers may develop into a barrier, effectively preventing him from learning the correct and almost subconscious interpretation of sensory perception.

'76 AGM

NOTICES OF MOTION

The following Notices of Motion have been approved by the Board of Directors to be put to the membership at the 1976 AGM in Ottawa. Final approval will require a 2/3 majority vote of club votes represented at the meeting.

1. BY-LAW NO. 5

Change this By-Law by adding the underlined words: "The Corporation shall be managed by a Board of eight Directors of whom four shall constitute a quorum. Seven of the Directors shall be elected by the membership, and the Past-President shall be an ex officio Director. They shall hold office until the next annual meeting following their election or appointment."

2. BY-LAW NO. 20

Delete from this By-Law the following: "At each annual meeting, the seven newly elected Directors and the Past-President shall elect a President and Vice-President."

Reason. These words are covered in By-Law No. 33.

3. BY-LAW NO. 3 (g) - ASSOCIATE MEMBERSHIP

Change this By-Law as follows:

"Associate members shall be, (i) persons who are members of the Soaring Society of America who are resident outside Canada, and, (ii) persons who are the children of club affiliated members, married couples or individual members. Such Associate

Members shall be admitted as such upon payment of an annual fee of four dollars (\$4.00)." "Associate Members shall be entitled to receive all bulletins of the Corporation, including FREE FLIGHT and to purchase publications at the same rates as other members. They shall not be entitled to vote at any meeting of the corporation but nevertheless shall enjoy all social privileges of the Corporation."

4. BY-LAW NO. 3 (j) - FREE FLIGHT AND SOARING PUBLICATIONS

Change this By-Law as follows: "All members of whatever category of the Corporation shall be entitled, free of charge, to copies of FREE FLIGHT (except categories 3 (a) and 3 (f) and married couple memberships shall receive one copy only)."

"All members of whatever category of the Corporation shall be entitled, free of charge, to copies of Soaring (except categories 3 (a), 3 (f) and 3 (g) and married couple memberships shall receive one copy only)."

"The copies of FREE FLIGHT and Soaring will be mailed to their private addresses, as shown by the Register of Members."

5. BY-LAW NO. 3 (b) - CLUB AFFILIATED MEMBERS

Change this annual fee of this By-Law from \$15.00 to \$25.00.

6. BY-LAW NO. 3 (c) - JUNIOR FLYING MEMBER

Change the annual fee of this By-Law from \$9.00 to \$15.00.

7. BY-LAW NO. 3 (d) - INDIVIDUAL MEMBERS

Change the annual fee of this By-Law from \$15.00 to \$25.00.

8. BY-LAW NO. 3 (e) - MARRIED COUPLE MEMBERSHIP

Change the annual fee of this By-Law from \$16.00 to \$26.00.

9. BY-LAW NO. 3 (g) - ASSOCIATE MEMBERSHIP

Change the annual fee of this By-Law from \$4.00 to \$10.00.

10 BY-LAW NO. 33

Delete the first sentence of this By-Law. Reason: Already covered in By-Law No. 20. Add to By-Law No. 33 the underlined words: "The seven Directors and the Past-President shall elect a President and Vice-President from the elected Directors."

11 MOTION - (Reference By-Law No. 32)

"It is moved that the incoming 1976 Directors appoint a By-Law Committee to examine thoroughly the present By-Laws with a view to having them up-dated, before the 1977 AGM, particularly by making the changes necessary to:

- (a) Differentiate between our sport of 'Gliding/Soaring' and the new sport of 'Hang Gliding' in the four objectives of the Corporation, and,
- (b) Separate the annual fees for the various categories of membership and to refer to a separate 'Fee Schedule', which may change from time to time as the fees become changed."

'76 AGM

At the Annual General Meeting there will be an opportunity for the members present, and their proxies, to elect two Directors-at-Large. nominations may be for a member from any zone with enthusiasm, ability and time available to contribute to the Association.

Nominations for the Directors-at-Large may be mailed to Mrs. Terry Tucker, 786 Chapman Blvd., Ottawa, K1G 1T9.

Use the following form and obtain the signatures of five current S.A.C. members together with the consenting signature of the nominee.

WE THE UNDERSIGNED MEMBERS OF THE SOARING ASSOCIATION OF CANADA, HEREBY
NOMINATE _____
OF _____ AS A CANDIDATE FOR
ELECTION TO THE BOARD OF DIRECTORS OF S.A.C.

SIGNED _____ CLUB _____

SIGNED _____ CLUB _____

SIGNED _____ CLUB _____

SIGNED _____ CLUB _____

SIGNED _____ CLUB _____

CANDIDATE'S CONSENTING SIGNATURE _____

'76 AGM

31ST ANNUAL GENERAL MEETING
MARCH 13, 1976 - CARLETON TOWERS HOTEL,
OTTAWA, ONTARIO

Agenda

Friday, March 12

19:00 Social Evening - President's Suite

Saturday, March 13

09:00 Registration - Names & Clubs

10:00 Opening Formalities

10:15 Minutes of 30th Annual General Meeting

10:30 Club Voting Strength & Proxies

10:45 Committee Reports

12:00 Luncheon

13:30 Business Session:

- Insurance
- Proposed By-Law Changes
- Proposed Fee Increases
- Club Safety Representatives
- World Contest Procedures (Selection of Pilots & Crews)
- Contests
 - 1976 Internationals (Finland)
 - 1976 Regionals - East
 - 1976 Regionals - West
 - 1977 Nationals
- Site of 1977 Annual General Meeting
- Other Business

17:30 Election of Two Directors-at-Large

17:45 Adjournment

18:30 Happy Hour

19:30 Dinner & Awards

Sunday, March 14

09:00 Meeting of New Directors

- Election of 1976 Officers
- Committee Appointments for 1976

FREE FLIGHT EDITOR'S ANNUAL REPORT

Our objective for 1975 was to transform FREE FLIGHT from a "newsletter" to a magazine of interest to Canadian glider pilots. The issues early in the year continued to have good

input from the membership and improvements in binding and the addition of the photo cover helped establish a new quality level.

At the July Directors' meeting additional funds for FREE FLIGHT were approved and the last two issues of 1975 were prepared with the assistance of Mike Landgraff and Roger Murray of Graphic Design Centre in Toronto. The printing continues to be done by Dondi Printing Services. The artwork, layout, photography and typesetting have made a significant change and we hope to continue these improvements in the coming year.

During 1975 there were 20 original articles published covering a wide range of subjects - significant evidence that our members have something of interest to say. We also published 40 commercial ads. However, in the six issues there were only four letters to the editor - is this an indication of apathy, approval or a lack of confidence in Her Majesty's mail service?

During the coming months we look for continued support from the members with articles, reports, photos, club news and other items of interest. There is gliding activity from Newfoundland to Vancouver Island and in 1976 we will also be looking at the soaring in Finland where our National Team will be competing.

It may sound trite but an association publication can only be as good as the members' contributions make it, so let's hear from you in 1976.

Respectfully submitted,

R.F. NANCARROW, Editor

'76 AGM

INSTRUCTORS' COMMITTEE ANNUAL REPORT 1975

INSTRUCTOR CLASSIFICATIONS

During 1975 there were 22 new instructors classified under Class III, 10 less than in 1974.

A total of 12 instructors were classified under Class II, 3 of whom were initially classified in Class II, and 14 were reclassified from Class III.

Sixteen instructors were classified under Class I, 2 of whom were initially classified in this Class, 7 were reclassified from Class II and 7 from Class III.

In summary, at the end of 1975, there were a total of 444 instructors in Canada, an increase of 28 during the year. A comparison for the last three years, 1973, 1974 and 1975 is shown in the table:

YEAR	CLASS I	CLASS II	CLASS III	TOTAL
1973	150	60	137	347
1974	170 (+20)	76 (+14)	169 (+16)	415
1975	+2 (New) +7 (From II) +7 (From III)-5 (To I)	+3 (New) +14 (From III)-14 (To II)	+22 (New) -14 (To II) -7 (To I)	(+50) - -
TOTALS	186 (+16)	88 (+12)	170 (+1)	444 (+29)

INSTRUCTION MANUAL

Sales of the Manual were successful during the year. In 1974 Parts I and II of the Manual were translated into French by ACL (Quebec), with the permission of S.A.C., and translation was still progressing on Part III, during 1975.

The Committee recommends that each Club purchase a set of the Part II plastic cards for installation into each of its two-seater training gliders. This would mean that the various training stages will be available to all club instructors at all times.

INSTRUCTOR COURSES

The Eastern Course was held at Pendleton Gliderport, with the

kind permission of Gatineau Gliding Club. It was held during the period May 18 to 24, 1975, and 21 candidates from 13 Eastern Clubs were in attendance. Guest lecturers from M.O.T. and Environment Canada were in attendance, as well as an observer from Examinations Branch of M.O.T., Ottawa office.

This year the Western Course was held in Winnipeg, with the assistance of Winnipeg Gliding Club. It was held during the period of September 14 to 20, 1975 and it was attended by 16 candidates from 9 Western Clubs. As Chairman of this Committee, I had the privilege of attending for the first two days, and Ian Oldaker of Winnipeg Gliding Club carried on as Course Director for the balance of the period. The usual lecture support was available from the Winnipeg Regional Office of M.O.T., and this was appreciated by S.A.C.

This year, for the first time since 1969, financial assistance was available from Sport Canada for the East and West Instructor Courses. The grants assisted with the travel and living expenses of the candidates, and this contributed greatly to the success of the Courses.

In 1975 also, one additional one-week Course was held for ACL (Ontario) at CFB Borden, during the period May 25 to 31, 1975. Nineteen candidates from various Ontario Air Cadet Squadrons were in attendance. These Courses for the instructors of Air Cadets contribute towards their training in the use of S.A.C. glider-instructor methods, and this helps to standardize the Air Cadet glider training in Canada.

ANNUAL INSTRUCTOR AWARD

At the end of the year Application Forms were sent to Clubs for the submission of names to be considered for this Award.

The submissions have not as yet been returned, but the winner of the Award will be chosen by the Committee prior to the presentation of the Trophies at the Annual General Meeting, on March 13, 1976 at Ottawa.

Respectfully submitted,

W.J. Piercy, Chairman



CHRONOMAT

by Hans Nietlispach

A cartridge-type camera with automatic film transport is equipped with an electronically controlled timer which exposes a five digit number onto the negative simultaneously when taking each picture. The digital indicator depicting continuously elapsed time in seconds is built in inside the camera between the lens and the film. The separate electronic set contains an operating test light, a device blocking the indicator during film exposure and a counter with film transport control.

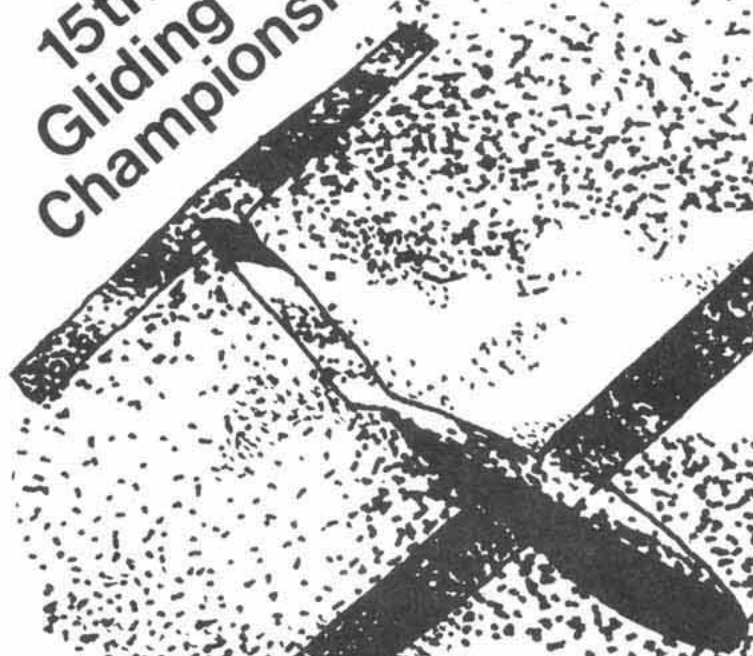
The film strip in the photograph shows six exposures in sequence as follows;

1. The task board with the official clock, exposure time 03315.
2. Starting point (hangers at Waikerie) taken according to the same rules as for turn points, exposure time 04957.
3. Turning point (silos at Waikerie), exposure time 05086.
4. Finish line (runway at Waikerie), exposure time 05232.
5. Glider identification marks, exposure time 05504.
6. Official clock, exposure time 05827.

The film shows a total elapsed time from photo 1 to photo 6 of 2512 seconds or 41 minutes and 52 seconds which is confirmed by the official clock in photos 1 and 6. The time is documented on the same film as the turnpoint evidence. Any number of pilots can use this method without a traffic jam at the departure point and each one can choose his own starting time. The altitude for taking the start point photograph may be unrestricted since the meteorological conditions allow all pilots to attain the same height before the starting point is opened. The dangerous high speed dashes over a start line are thus eliminated since the pilots will depart at their selected cross country speed. The starting point may be any well defined object on or outside the airfield which permits the avoiding of restricted airspace. The entire radio voiced traffic as well as the numerous people now needed to operate the start line are eliminated. There is no limitation to the number of competitors using the new method simultaneously which results in a great advantage when compared with the existing method, particularly in weak weather. The responsibility with proper timing is with pilots themselves and no longer with the contest organizers. The existing problem of close turn points and regular reporting over the start gate become obsolete. The reliability of the system is at least equal to that of the pure photographic part of the installation.

Chronomat was developed by Hans Nietlispach of Bern in cooperation with Stefan Buhler, Rudi Vogeli, Jurg Hofmann, Karl Weber and Fritz Bader. A prototype series has been used by the Swiss National team during 1975 and the results of these practical experiences are expected soon. While costs are not yet available, it is expected that they will be on the lower side of the price range of present gliding instruments.

Welcome to Finland for the 15th World Gliding Championships



Please mail the coupon below to:
FINNAIR The Official Carrier of
World Gliding Championships 1976
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June 13-27, 1976
Räyskälä,
Finland



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Address

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☐ Club

I am Travelling Individually
I Belong To

The SAC 1975 Western

n Sunday the 14th of September at 9 a.m. SAC President and Chairman of the SAC Instructors' Committee, Walter Piercy opened the first session of the 1975 Western Instructors Course at the Airliner Motor Hotel in Winnipeg. 15 instructors and would-be-instructors made up the official course participants while visitors sat in on the sessions.


Those attending included representatives of all four western provinces. Distance proved no handicap as was shown by the inclusion of 2 representatives from SAC's most western club (Port Alberni, B.C.) and one from its most northern club (Fort St. John, B.C.). Naturally the strongest showing came from the host club (Winnipeg Gliding Club) but the most gratifying response was from those individuals who came to the course from areas where clubs are only just being formed. Dennis Cooper and Al Wilcox, who have experience training Air Cadets, fell into this last category. Each one is trying to start a new club outside of the air cadet movement. We all hope that they are successful in their efforts and that next year we have two new clubs active on the prairies.

The course consisted of lecture sessions, flying sessions, during which tapes were taken of the instructors' patter, and tape analysis sessions, during which the tapes were played and criticized. The lectures occupied the mornings the flying the afternoons of the first four days (strong wind and low cloud interfered on the last three days), and the tapes were played in the evenings and some in class the following day.

Walter Piercy warned that the tapes usually started out poorly but improved as the week went on. Unfortunately he could only stay the first two days for he would have been most gratified with the improvement as the week went on. The initial tapes definitely required all participants to loosen up with a couple of shots of Dutch courage before the tapes were played but the later ones were quite safe to listen to in a sober condition.

The first two days lectures were on the principles of teaching and teaching methods and were given by Walter Piercy. On Tuesday, course director, Ian Oldaker took over from Walter and in the remainder of the week covered lesson plans, weight and balance and various other topics.

Three guest lecturers also addressed the group during the course. On Wednesday, Norm Taylor presented a very informative explanation of the use of the tephigram which also gave some insight into atmospheric processes. On Thursday, Leo Hoffman, a Regional MOT Flight Standards Inspector, gave us an idea of MOT methods of maintaining the standard of flight training and on Friday, Dr. O. Skjenna, the Regional Aviation Medical Officer, presented some aspects of Aviation Medicine, dealing with physical, psychological, physiological and pathological factors affecting us in flight. Certainly he gave all present plenty to think about in an area that many of us tend to ignore. The highlight of Dr. Skjenna's lecture came when he attempted to demonstrate the effect of anticipation in producing incorrect responses. Regardless of how you try to confuse her Loretta will still "go" when she comes to a green light. Quite a girl. A disappointment to Dr. Skjenna though.

n a similar category to the guest lectures, in that it was not directly concerned with instruction but was valuable in giving us an insight into the environment in which we fly was a Thursday evening visit to the Winnipeg Air Traffic Control centre including a visit to the airport tower. This visit was arranged by George Evans of the Winnipeg Gliding Club, a MOT employee. All who went considered themselves fortunate to have such an informative guide sitting in on the course. George's efforts to arrange the visit and also to explain all we saw were greatly appreciated.

The flying sessions introduced some of the instructors to the pleasures of low performance gliders (2-22's). A few even managed brief soaring flights in unfavorable conditions although these had to be squeezed into the 20 minute maximum allowed for the exercises.

The Winnipeg Gliding Club's Pidgeon Lake strip is quite small and has power lines at one end. In the strong crosswinds, which prevailed during the course, most pilots gave the wires good clearance although few disagreed with the comment on tape for one flight — "Boy, I sure cut that close". If you are heading for Winnipeg Gliding Club by air remember any landings that just clear the fence are likely to be carrier style — arrested by wires. At the opposite end of the field an undershoot could be a swimming lesson. You have been warned!!

Each flying session was planned around one of the stages in the S.A.C. Instruction guide; the stages being covered were II, III, IV, & V. Of these, the stage V stability

Instructors Course



exercise presented the most difficulty. It seemed that with some of the weight combinations the glider tended to stabilize in a near vertical dive when the heavier member of the pair was acting as student while, when the roles were reversed, the glider preferred the stall. Friday's afternoon class exercise on weight and balance provided some insight into the causes of this problem.

The stage III tapes were of interest in that they showed that this sequence was misunderstood by most participating in the course. It seemed that most were teaching turns whereas the original intention of those who set up the course was for this stage to be used to introduce the student to the use of ailerons and rudder in steering a straight course. Perhaps the use of the term gentle turns in the title is confusing.

The other stages used showed few problems in execution but indicated to all concerned the need for clear concise directions with the minimum of wasted time. A 2-22 descends very rapidly from 2000'

and if instructions are not clear a student can be counted upon to misinterpret them. Some of the "students" riding the front seat were almost malicious in their misinterpretations. Thank goodness normal students aren't quite so smart!

I am sure all the participants on this course will agree with me when I state that the opportunity we had to critically examine our procedures has only benefited us as instructors and hence should ultimately benefit the students we teach. The exchange of ideas and information both during the formal classes and during the informal sessions at night and around coffee has provided us all with a tremendous amount of knowledge with which to upgrade and improve both our soaring and our teaching techniques.

I would like to thank the 1975 Western Instructors Course instructors, Walter Piercy and Ian Oldaker for their efforts, our guest lecturers

Leo Hoffman, Norm Taylor and Dr. Skjenna for informative talks, our tow pilot Dave Rogers whose presence at the field was essential for the flying, and also all those who directly and indirectly assisted in organizing the course. A special word of thanks, also, to those who negotiated the financial assistance from Sport Canada which enabled many of us to attend without incurring a large financial burden.

Just one final closing comment. If Ian Oldaker is the course director in 1976 would someone please buy him a gavel, his use of the shoe would have made the late Mr. Krushchev proud but it is a trifle undignified!

Back row, left to right: Walter Piercy, Rideau G.C.; John Kopala, CuNim G.C.; Cam Cowan, Alberni Valley S.A.; Lloyd Bungay, Vancouver S.A.; Charles Grant, Vancouver S.A.; Chris Pedersen, Winnipeg G.C.; Al Wilcos, Air Cadets, Manitoba; Loretta Ward, Alberni Valley S.A.; Ian Oldaker, Winnipeg G.C.
Front Row, left to right: Don Asmussen, Air Cadets, Sask.; Dennis Copper, Red Deer S.A.; Leslie Brown, Red Deer S.A.; Jerry Shieron, Wide Sky F.C.; Tony Sawatzky, Winnipeg G.C.; Fred Sharp, Winnipeg G.C.; Pat Gropp, Regina G. & S.A.;
Inset: Dennis Miller, Winnipeg G.C.; Bryce Stout, Winnipeg G.C.



BY ELEM

Seeing the picture of the Montreal Soaring Council's L-19 with an LS-1 and a Skylark on tow (FREE FLIGHT, May/June 1975, page 17) we succumbed to an acute attack of jealousy. The nagging question in our mind was, "Who did it first?". Not hampered by false, or any other kind of modesty and helped by a kingsize ego, we like to collect "firsts". More, we like to brag about it. The cover of this modesty thing was blown anyway by John Agnew when at the AGM he stated boldly, and honestly, that "these glider pilots are not nearly as modest as they would like you to believe".

Thus when the Peterborough Pilot's Association suggested that we send a glider to the airshow in September 1974 and do some aerobatics in order to liven up the dull performance of the Carling Team and the Snowbirds, we nonchalantly said "sure; we will send two and they

will do it in formation". The reason for the invitation was that some of their members previously observed our student pilots doing circuit practice and said that they never saw anything like that before and they were sure the crowd would love it.

I suggested, as logic dictates, that the easiest way to keep two things together is the use of a good strong rope. The CFI unreasonably objected to this sensible solution. After an extra twist on both of his arms however, at least he agreed to tie the Blanik to the tired old Supercub. No sweat he said. The darned things will never leave the ground anyway. He was wrong, like all CFI's always are. We needed only thirty minutes to get to 5000 feet but that included the time our two pilots fumbled to restart the engine after running dry on the right fuel tank (or was it the wrong one? I am not sure).

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Anyway we have done it although I cannot send you pictures. The reason for it is that nobody believed we would do it and left their cameras at home. But we have witnesses, about five thousand of them, pillars of society to the last man.

Being smaller but smarter than those boys from the twilight zone between La Belle Province and ugly Ontario, we used a different tow procedure. Observing the Montrealers hawk burial service on the photo, it is obvious they have no confidence in the other fellow, being far out left and right from the tow plane and casting a suspecting eye on each other. No wonder; what with living in Quebec and flying in Ontario, they must be schizophrenic. Obviously one of the pilots was French and the other a WASP and no siree neither would let the other get any higher than himself.

We had no such problems. Being older

I pulled rank on Bogdan and gave him the short rope. On take off and airborne he moved smartly into the centre high and I into the centre low tow position. It is much easier on your rudder foot you see? The Blanik of Bogdan loomed high in front and above me; a beautiful sight and the easiest thing to follow. We were in business.

During the formation aerobatics (and I use the term loosely) it became obvious how wrong the CFI was vetoing the rope. It was the only thing that could have held us together. The Peterborough boys were right though, the crowd loved it as we progressed from formation to duet and then to duel.

Now you see why we are not impressed with those upstarts from the hawks' burial site. We also have a secret weapon but that will be another story or would you rather have a picture? You got it!

USING THE

by William Langelaan

William Langelaan moved to Toronto from the Netherlands in September of 1974 and is now flying out of York Soaring at Arthur, Ontario. William has fifteen years experience in gliding and has also done some sport parachuting. He has been a member of the Dutch team on six occasions, competing in a number of Dutch and European contests. He was winner of the Victor Boin Trophy in 1973 and was third in the Dutch Nationals. In addition to this article, William has written a primary training manual which he intends to translate into English.

To obtain the highest possible cross-country speed it is imperative to cover the distance with the maximum amount of straight glides and only regain height in thermals with the highest velocities.

Interruptions of the straight glide need to be avoided because circling not only results in a momentary reduction to zero of the cross-country speed, but also in an added loss of potential energy due to a higher rate of sink, see figure 1.

The following graph shows the relation of the climbing rate, V_C , and the cross-country speed, V_X . The cross-country speed is defined by the length of the direct course divided by the flight time.

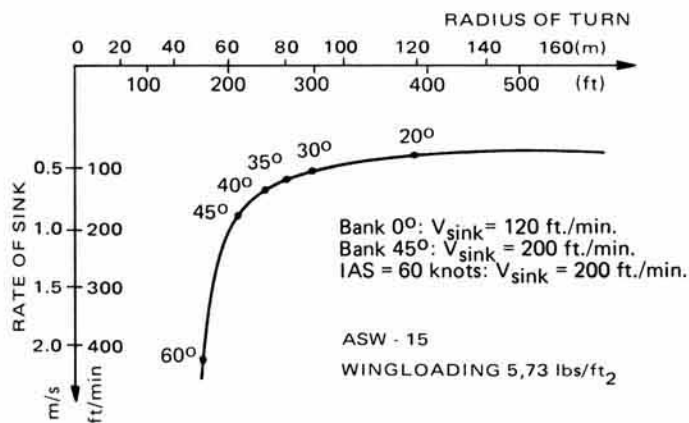
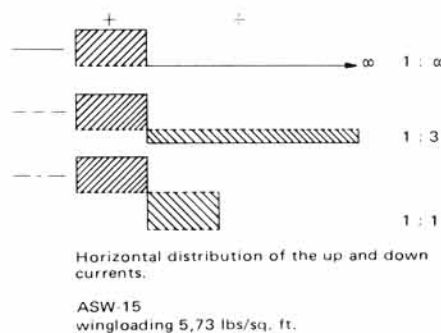
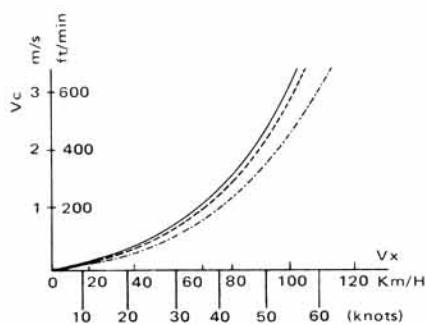
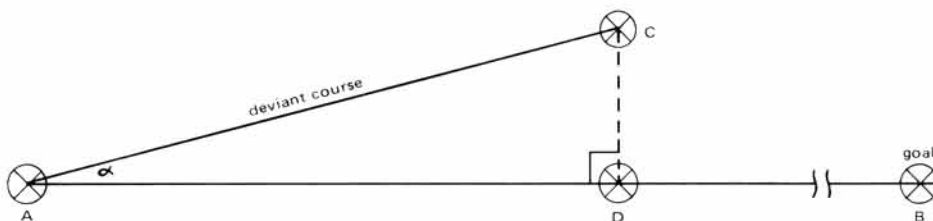


FIGURE 1 (SEE WAIBEL)

MACCREADY SPEED RING



Thus finding the strongest thermals has a very great influence on the cross-country speed. On the other hand the graph also shows clearly that by shortening the distance between thermals the cross-country speed also improves. The latter relates to dolphin flying whereby one by gently weaving from side to side of the course tries to shorten the distance between the thermals, and by continuously altering the speed tries to minimize the drain of energy where the air is sinking and to maximize the gain of energy where the air is rising. On finding the strongest thermals for gaining height does arise the question of what deviation from the direct course towards an expected above-average thermal is tolerable.



MACCREADY SPEED RING

A deviation from the direct course is sensible as the flight-time from A to C is less than the flight-time from A to D.

$$\text{Flight-time } T = \frac{L}{V_x}$$

L = length of the course
V_x = cross-country speed

$$\frac{V_{xAC} - V_{xAD}}{V_{xAD}} \times 100\% = P$$

"P" represents the percentage by which the cross-country speed from A to C must exceed the cross-country speed from A to D to approach goal B at least as fast, if the allowance has been made that the goal can be approached with a deviation from the direct course of less than 10°.

ASW-15 at 5,73 lbs/sq. ft.

α P	0° 0%	10° 1,5%	20° 6,5%	30° 15%	40° 35%	45° 41%	
V _x	32	33	34,5	37	43	45,5	knots
V _c	200	200	260	300	400	500	ft/min
V _x	44	44,5	46	50	58,5	65	knots
V _c	400	400	500	600	800	1200	ft/min
V _x	51,5	52	54,5	59,5	67,5	70	knots
V _c	600	600	700	800	—	—	ft/min

The table above shows the increase in cross-country speed and the related climbing rate that needs to be obtained to approach the goal at least at the same speed. The table shows that a deviation of up to 10° has a negligible influence on the cross-country speed and should not be avoided. Practically spoken, a deviation of more than 10° is only effective if the expected climbing rate on the direct course does not exceed 200 ft/min. In that case however a deviation of 45° demands a climbing rate of more

than 500 ft/min to proceed more quickly. An alternative for 400 ft/min at a deviation of 30° demands a climbing rate of more than 600 ft/min to obtain a faster cross-country speed.

The above relates to long glides. In case that at the end of a glide the decision is made for a course alteration, a larger deviation becomes possible. However, the time lost by deviating must be regained during the climb.

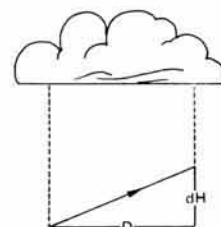
V _c	200 ft/min	400 ft/min	600 ft/min	800 ft/min
time for 2400 ft gain of ht.	12 min	6 min	4 min	3 min
respective time gain		6 min	8 min 2 min	9 min 3 min 1 min

This table shows clearly that an alternative for a 200 ft/min thermal is worth every effort. But for a higher rate of climb there is not much time left to search for an alternative!

When gliding towards the next thermal the MacCready Speed Ring indicates the optimum speed to fly to meet with the current situation in order to maintain the highest possible cross-country speed. The indicated speeds at which to fly have to be carefully followed. An accurate and highly responsive variometer is therefore a must. Flying too fast in an upcurrent and too slow in a down current should be avoided as much as possible. Doing this is made easier by making use of a Netto Variometer System. This system indicates the real sinking or rising speeds of the air masses by subtracting the glider's polar sinking speed from the overall vertical speed.

If during the glide an upcurrent is met, the speed indication on the MacCready scale should still be adhered to. Flying slower, for example at the speed of minimum

sink, the loss of speed is not worth the gain in height. As might show the following table for the Ka-6E, according to Blanchard:



V _{thermal}	V _{climb}	V _{flying}	Climbing Gradient
ft/min X 100	ft/min X 100	knots	dH : D
2	0,75	38	1 : 51
3	1,7	37,5	1 : 22
4	2,7	37	1 : 14
5	3,65	36,5	1 : 10

If the radius of a thermal is 1500 feet, a gradient of 1 : 51 results in height gain of 30 feet and a gradient of 1 : 14 in a height gain of 100 feet.

For setting the speed ring, there are 3 factors of importance:

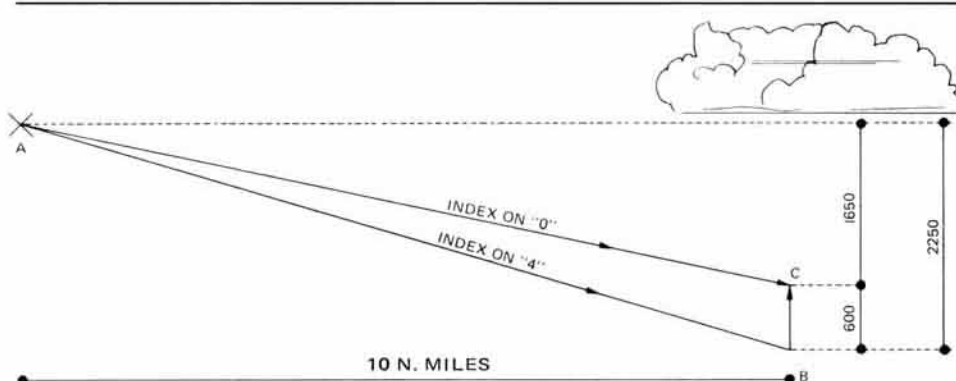
1. the rate of lift,
2. the altitude,
3. the distance to the next usable thermal.

1. The Rate of Lift:

The index is set for the rate of climb that is expected at the altitude at which the thermal is reached. The reason for this is that as the glide has been made with the correct index setting the flying speed will be higher, thus the upcurrent will be met sooner but also at a lower altitude when compared to a pilot who flew with a 0 ft/min setting. The battle over this pilot is won if one succeeds in climbing past the 0 ft/min pilot's level of entry into the thermal,

MACCREADY SPEED RING

before he has entered. Above this level both gliders have the same rate of climb, so nothing can be gained on behalf of the other. Also the glide should be optimal for the rate of climb that is to be met below the entry level of the pilot with the 0 ft/min index setting!



Index on 0: $V = 50$ knots $E = 1:37$ $dH = 1650$
 Index on 4: $V = 75$ knots $E = 1:27$ $dH = 2250$ ft.
 Flighttime for "0" from A to C:
 $\frac{10}{50} \times 3600 = 720$ seconds.
 Flighttime for "4" from A to B to C:
 $\frac{10}{75} \times 3600 + 600 \times \frac{60}{4} = 570$ seconds, the
 difference being 150 seconds = 2½ minutes!

To cope with the need to gain height only with the best possible climbing rates, the thermal has to be abandoned if the rate of climb becomes less than the rate of climb that is to be expected at the level of entry in the next thermal.

altitude and distance to the next thermal that is to be used, have to be looked upon simultaneously, in order to estimate the proper index setting.

Three different situations can thereby be defined:

- a) altitude and distance make it easy to reach the next thermal,
- b) it is doubtful if altitude and distance are sufficient to reach the next thermal,
- c) with the altitude and the distance it is impossible to reach the next thermal.

a) There are no problems. The index should be set for the expected rate of climb at the next thermal.

b) This is the more common situation; after approaching the next cloud will the thermal be of the 500 ft/min class or is it merely a 100 ft/min thermal and should the glide be continued in search for an adequate thermal? However promising a cloud may look there always remains a chance that the thermal does not stand up to the expectations. If in that case, the altitude is sufficient to continue the glide, the opportunity remains to enter a thermal of the desired quality. Under these circumstances it is advantageous to fly with a more conservative index setting. This "improves" the glide angle, enabling the pilot to carry on farther and to have a better chance in reaching maximum lift. For example the ASW-15 flying in stationary air with the index of the MacCready speed ring on 400 ft/min results in a flying speed of 75 knots and a corresponding glide angle of 1:27,2. An index setting on 280 ft/min results in 70 knots and 1:30,6. But what is the impact of this on the cross-country speed? Now have a look at the table below:

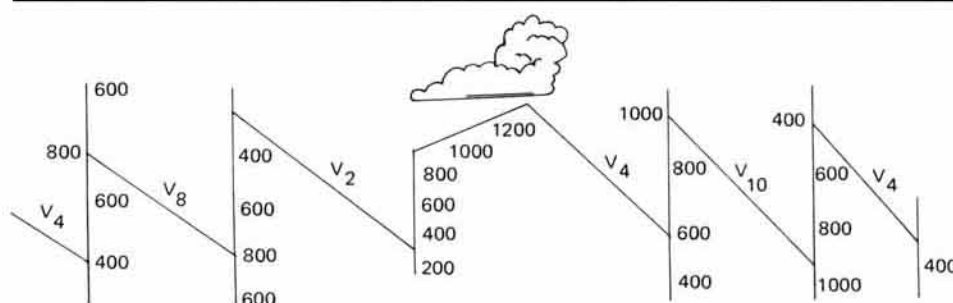


FIGURE 5 (SEE REICHMANN)

V_n corresponds with the index setting of the speed ring. The numbers along the verticals indicate the rates of climb.

2. 3. The Altitude, and the Distance to The Next Usable Thermal:

Altitude and distance are intimately related with gliding. Flight

MACCREADY SPEED RING

ASW-15, wingloading. 5,73lbs/sq.ft.

V _{climb}	Index setting	V _{cross-country}	speed loss	
ft/min x 100	ft/min x 100	knots	knots	%
2	0	28	3,8	12
	2	32	—	—
	4	31	1,1	3,5
	6	30	2,2	7
	8	28	3,8	12
4	0	36	7,5	17
	2	42	1,6	3,5
	4	44	—	—
	6	43	0,5	1
	8	42	1,6	3,5
6	0	39	12	23
	2	48	3,2	6
	4	51	0,5	1
	6	51,5	—	—
	8	51	0,2	0,5
8	0	42	21	37
	2	52	5,5	9
	4	56	1,6q	3
	6	57	0,5	1
	8	57,5	—	—

(See Reichmann)

For one thing, the table shows clearly that it is more important to make use of the strongest thermals than to fly with a correct index setting. Let us assume a situation of generally weak lift with, at random intervals, 600 ft/min thermals. One pilot hits a 600 ft/min upcurrent with a 200 ft/min index setting and obtains a cross-country speed of 48 knots. While another pilots flies with a 600 ft/min setting but by lack of altitude has to settle for a 400 ft/min upcurrent.

The result is a cross-country speed of only 43 knots! But the chance remains that the pilot who was flying with the 600 ft/min setting also hits the 600 ft/min thermal, resulting in a cross-country speed of 51,5 knots! However, according to the table, it seems possible to make use of lower scale settings with only losing very little cross-country speed. The advantages of a slightly lower index setting are:

- the increased chance to reach the best possible thermal;

- as a result of the lower speed, decelerating and accelerating can be done more accurately related to the up and down currents that are crossed,

- by pulling up there is less g-force acting on the glider and therefore less drag.

For these reasons the following index settings might be considered:

expected rate of climb	speed ring index setting
200 ft/min	→ 2
400 ft/min	→ 3
600 ft/min	→ 4
800 ft/min	→ 4.6

c) The problem is analogous to a final glide. The difference is that the aim is not to reach the finish by the quickest means, but to reach as fast and as low as possible the desired thermal.

If the location of a superior thermal is more or less known, for example over a town located beyond an arid area, the final glide calculator should be used to determine the minimal height gain related to the momentary rate of climb that has to be achieved before continuing the glide. The MacCready speed ring has to be set according to the rate of climb at which the thermal is left! We have to determine ourselves at what altitude we want to reach the better thermal. I would tend to say that 1500 ft. above ground level is sufficient. It can be concluded that it is very sensible during flight preparation when the track crosses notoriously good thermal generating areas to add a distance scale along the course line on the map, similar to the distance scale that has to be added for the final glide.

If one is caught flying low in weak thermals and there is no indication as to where or when better conditions will be met, there is nothing to do other than remain low. For the gain of height has to

be made in the strongest possible thermals. The lower a strong thermal is hit the greater the profit will be. When flying at a low altitude the only thing to do is to maintain that altitude, and not climb high in the weak thermals, in the hope that the next thermal will be the one that is anticipated. Of course that one is even worse! Again only a shallow climb should be made and then the glide should be continued with the speed ring set for the rate of climb that was found in the thermal at the time of abandoning it. If this low altitude gliding is making you nervous, then try to remember that when finally after an area 200 ft/min thermals a 400 ft/min thermal is hit at an altitude of 1600 feet the gain over the pilot who wanted more comfort in gliding and made a full climb in the weak thermal and then hits the 400 ft/min thermal at 3000 feet, will be 7 minutes!

Conclusion: in weak thermals or a very high cloudbase, use an exact index setting; otherwise the setting depends on the quality of the thermals and the flight altitude. The indicated airspeeds should be obeyed as closely as possible.

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Letters to the Editor

In the July/August '75 issue of "Free Flight" you published an article "What's WATTS" by Ian Oldaker in the Instructors Only feature. While basically being in agreement with Ian's intentions in publicizing Winnipeg Gliding Club's checklist I am offering the following thoughts on it.

The use of a downwind checklist to be initiated upon entry to the downwind leg prior to landing is a commendable procedure which we should try to encourage in every pilot. By the use of such a list the circuit entry is properly organized and the pilot is unlikely to be distracted at some later stage of his landing by the need to carry out some previously forgotten procedure, e.g. lowering the undercarriage, and is thus less likely to be drawn into a situation where a small

minor error is compounded by subsequent errors into a major mistake.

The WATTS check used by the Winnipeg Gliding Club was presented by Ian Oldaker as a simple foundation upon which a pilot could build. Unfortunately most builders refuse to modify foundations when building upon them and hence we would be providing the cornerstone of this future checklist in the words "WATTS". This is perhaps a mistake and instead we should consider providing as complete a checklist as possible even if during the initial training the student has no use for certain of the items.

Let us therefore consider the items requiring checking when entering the circuit in a high performance glider or for that matter

in a more advanced two seater such as the Blanik.

1. WIND

Determine wind strength and direction. Most assuredly the first essential since it will determine the landing direction (see Ian's article for further reasons).

2. AIRSPEED

Adjust to approach speed.

3. FLAPS

Set to landing position (unnecessary if the ship is not flapped).

4. TRIM

Set trim for new speed and configuration.

5. UNDERCARRIAGE

Lower gear and check that it is down and locked.

6. SPOILERS

Check operation of spoilers and

Club News

WINNIPEG GLIDING CLUB

Nineteen seventy-five has proven to be another year of progress for the WGC highlighted by the purchase of a new towplane — a Citabria 150 hp, 7GCBC (C-GTOW). Thanks partly to a faster turnaround and terrific support from our towpilots headed by John Datzkiw, we had a record 2404 flights of which 2080

were training flights made by 47 students (total club membership is now 112).

Cross country weather was poorer than 1974 resulting in less total mileage; however, Dave Tustin in his HP-14T managed to squeeze in a 326 km flight at the end of September.

Another new aircraft made its debut — Russ Flint's Pioneer II,

C-GLUV; the performance looks promising, but next year's cross country season will be the real test.

Our annual awards banquet was very well attended and the following trophies were presented: Schweizer Trophy (best flight by a newly licensed or student pilot) Peter Baudorf — 3 hr. 35 min.; Jack Barber Trophy (5 best flights, pilot with less than 50 hrs. solo)

Hangar Flying

HERE ARE THE LUCKY WINNERS OF THE DRAW HELD TO HELP THE CANADIAN TEAM GOING TO THE WORLD CONTEST IN FINLAND IN JUNE.

WESTERN CANADA

First Prize — TV SET

James Preston, Calgary

Second — \$50.

C. Nikitiuk, Port Alberni

Third

— \$25.

Dale Ray, Fort St. John

EASTERN CANADA

First Prize — TV Set

Paul Bergamin, Bramalea

Second

— \$50.

R.K. Holliday, St. Adele

Third

— \$25.

Linda Rosen, Toronto

Membership Dues

Membership dues after January 1st are half rate as the membership year starts July 1st. For the last half of the membership year the rates are \$7.50 for a regular member, and \$4.50 for a junior. Insurance premiums are \$27.00 per solo pilot.

continue circuit with hand on spoilers ready for use.

7. TRAFFIC

Although the pilot should always be aware of the traffic in the air and should check the ground before landing a reminder here is not inappropriate since his attention has been momentarily distracted by the need to carry out his checks.

Now if we consider the first letter of each word we have a reasonably complete checklist which comes out as WAFUST. This could be used as is but if we switch the third and fourth letters about (flaps and trim) and consider them as actions which we will habitually carry out as a grouped procedure (i.e. any time the flaps are touched the aircraft is retrimmed), we now have an easily

remembered mnemonic WAT FUST (What first). At sites where radio is in use and a call on entry to the circuit pattern is used (such as we use at V.S.A.) then the check could be modified to include an R for radio either as WAT FURST or WAT FUST R. Personally I favour the latter since the radio is a time consuming procedure which can be carried out on the downwind while checking traffic.

A further consideration to the forming of good habit patterns in a pilot which arises out of the above is the use of radio in circuit. We at V.S.A. have adopted the procedure of calling in on downwind "XXX downwind, gear down and locked" where XXX is the aircraft callsign. This procedure is followed even if the ship has the gear permanently down and

welded. Several pilots have found that the gear reminder built into the radio procedures has saved them an inadvertent wheel up landing.

Reverting back to the main theme of this discussion, I would like to propose that future editions of the SAC training manual incorporate a landing check list which should be as complete as possible without being burdensome. The suggested form of this list is:

W	Wind
A	Airspeed
T	Trim
F	Flaps
U	Undercarriage
S	Spoilers
T	Traffic
R	Radio (Optional)

Lloyd M. Bungey
(Vancouver Soaring Club)

Chris Pedersen; James Dew Trophy (best flight of the year) Dave Tustin 326 km; Norm Dyck Trophy (all-round soaring pilot of the year) Ian Oldaker.

As a point of interest this past year was the WGC's first experience of flying within the new Winnipeg Terminal Radar Service Area (TRSA). Through special arrangement with ATC our activities were

relatively unrestricted — we were able, by telephone, to open a "Glider Activity Area" for NORDO gliders to specified altitudes. Getting out of the area through the TRSA however required radio contact with the TRSA controller, and an immediate effect was to raise the number of radios in the club from one to about ten.

A step made by WGC this year

was to set up a planning committee to look at the club's future, e.g. to answer such questions as, do we see ourselves primarily as a training club or as a gentlemen's soaring club, what aircraft do we need, are our facilities big enough, etc.? The first reports are already seeing action, and the club is getting a new awareness and sense of direction. We can hardly wait for '76. R.Flint

1976 Eastern Regional Contest

SOSA Director Jack Knowles advised that the 76 Eastern Regionals have been tentatively set for July 27th (Tuesday) to August 5th (Thursday) at Rockton. Entries will be limited to 30 gliders with open, standard and sports class in the competition if sufficient applications are received from each class. Contact Jack Knowles at 543

Cayley Drive, London, Ontario N6H 3G5 for application forms.

Printing Machine for Sale

S.A.C. has a Multilith printing machine Model 1250 for sale. Write to Terry Tucker at 786 Chapman Blvd., Ottawa for details.

AGM Reservations

Going to the AGM in Ottawa? It will be held on Saturday March 13th at the Carleton Towers Hotel, 150 Albert Street. Be sure to make your reservations before February 28th.

Book Review



AMERICA'S SOARING BOOK

by the Editors of Flying Magazine
Charles Scribner's Sons/New York 272 pages.
Distributed in Canada by John Wiley and
Sons Canada Limited
\$14.95 Hardcover
Reviewed by Bob Nancarrow

The Editors of Flying Magazine have put together a group effort which does a creditable job of telling the soaring story like it is. Words like "action", "excitement", "relaxation", "challenge", "adventure" and "achievement" are used to describe various aspects of our sport.

The twelve chapters take you through what soaring is all about; some history and organization, the basics of flying gliders and what it is like to be a glider pilot. There is a section describing a variety of well known ships, a description of a number of soaring sites both in the U.S.A. and abroad, and some interesting anecdotes about competition pilots and crewing.

One appealing feature of the book is the generous use of illustrations and photographs showing about 35 types of gliders from the early days of flying through to the current crop of superships. There is a chapter titled "A Sport of Generosity" which deals with the people and the contrasts in the sport of soaring. The splendid isolation of glider flight is such a change from the dependence on others on the ground prior to and after the flight. The lonely silence contrasts to the camaraderie that glider pilots share. How the cross country pilot relates to and depends on his crew while pursuing his solitary flight is a rather unique relationship in sport and one which provides pleasure and memorable experiences for those on the ground as well as the pilot in the cockpit.

Price reference in the text and the Sailplane Directory should have been omitted as they are already badly outdated. That, and the faulty identification of one of the glider photographs was the only criticism of this welcome addition to my soaring library. The Appendix includes a glossary of soaring terms, a list of U.S. soaring clubs and schools, a sailplane directory listing 19 popular types from the 2-33 to the A-21J and a list of U.S. and world soaring records.

This will be a great gift book for the novice or experienced glider pilot and will no doubt interest many newcomers to gliding because it accurately describes the scope and vitality of soaring so well.

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Contact:
A.O. Schreiter, SOSA,
3298 Lone Feather Crescent,
Mississauga, Ontario, L4Y 3G5
(416) 625-0400 H
(416) 487-3201 O

SEARCH FOR GLIDER PHOTOS

I am attempting to expand my slide presentation on the history of gliding, and wish to know the photo contents of the following books, both by James E. Mrazek and published by Robert Hale, London:

"Fighting Gliders of W W II"
"The Glider War"

I would be pleased to learn of anyone owning these books. Thank you.

R.D. Robinson
48 Checkendon Drive
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7.	Weather Briefing Form N-052 (8 1/2" x 11 sheet)	n/c			
8.	Application for Official Observer	n/c			

NOTES:

1. Item 2 (b, c, d or e) available only from
Mr. P. Coleridge, 80 Waverley St., Ottawa, Ont.
K2P 0V2

2. All other items available from Box 1173,
Station B, Ottawa, Ont. or Mrs. T. Tucker,
786 Chapman Blvd., Ottawa, Ont. K1G 1T9

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