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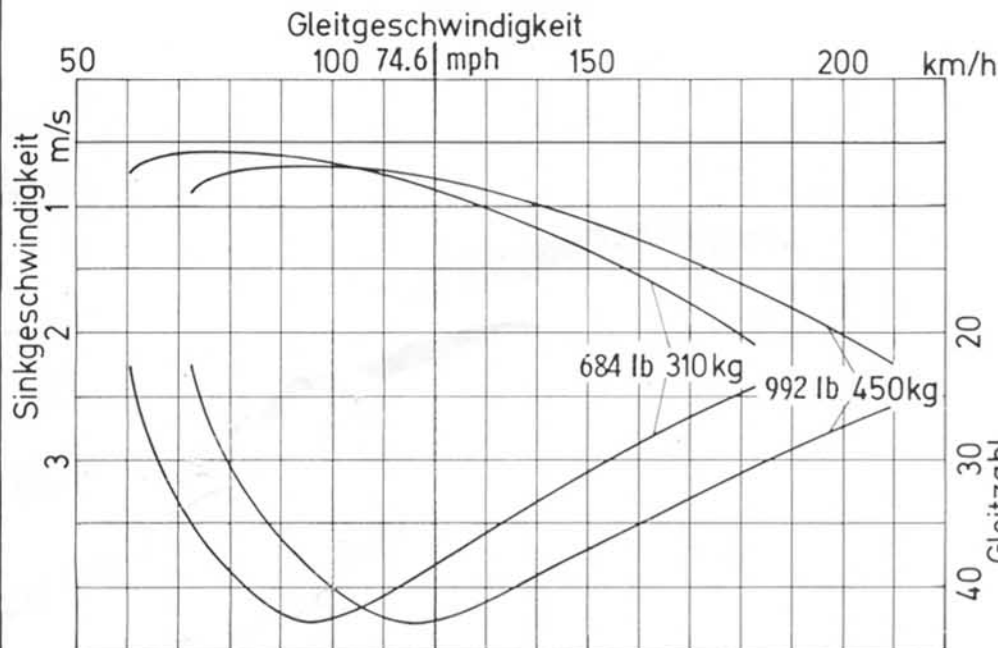
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Issue 5

September/October 1980

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— The Editor

COVER PICTURE

"Contest Lineup" — P. Masak



President's Notes

The National Office

Some of you may have been surprised to hear from our new Executive Director, Jim Leach, rather than from Terry Tucker when contacting the National Office on the myriad of topics which constitute part of its daily fare. Jim has actively immersed himself in the management of our office and thereby has been able to shoulder some of the heavy load which had been carried by Terry for many years. Terry, of course, continues to make her unique and invaluable contribution to our Association's well-being for which we have been so indebted in the past.

With the employment of an Executive Director, we are now able to implement some of the plans which we have been wanting to undertake for some years but for which we have not had available the necessary manpower. Apart from managing routine office business, Jim has been charged with implementing a long-term plan to allow the continued growth of soaring in Canada. This will involve not only the provision of briefing material to clubs to allow them benefit from the techniques which have been used by our larger clubs to grow and retain

members, but also to help soaring spread to population centres presently not served by any contact with the sport. One of the areas which will also receive additional emphasis is the encouragement of competition at the local and provincial levels (competition in this context will be broader than the concept of racing around cross-country courses and may include competition in such things as airmanship). When comparisons are made with other sports, it becomes apparent that the enthusiasm generated for the competitive aspects of our sport, which provides a powerful catalyst for general growth, comes quite late in the training and development of our students, because of the length of time required to reach the appropriate standards to compete safely in cross-country flying. Soaring, as a recreational activity, competes with other recreational opportunities for the time and money of its participants and must be shown to provide a good return on this investment in order to attract the members essential for our continued enjoyment of the sport. We at the National Level will do our best to make the return to appear to be obvious to participants and to attract new members.

Government Funding

As a result of continued appeals, the SAC was able to obtain a modest concession from the Federal Government of financial support for National Office administration and for the next Annual General Meeting to be held in Toronto. No further funding appears to be likely until we meet the provincial funding support criterion which hopefully will occur by the year's end if the newly-formed British Columbia Soaring Council receives the funding for which it has applied. If this works out according to plan we should be eligible for partial support for the Canadian Team at the Internationals in Paderborn, West Germany, in May-June 1981. Even with Federal Government support, however, the general membership will need to raise substantial funding and your contribution is solicited. The Nationals this year at Claresholm showed some high-calibre competition amongst many of our pilots and portends well for an excellent Canadian showing in the Internationals if we can support our team financially. (Note, contributions are tax-deductible.)

Cont'd on page 10

MEMBER CLUBS

Maritime Zone

Bluenose Soaring Club, c/o 608-105 Dunbrack St., Halifax, N.S. B3M 3G7
New Brunswick Soaring Association, 521 Blythwood Ave., Riverview, N.B. E1B 2H3
Newfoundland Soaring Society, c/o Mr. J. J. Williams, 57 Boyle St., St. John's, Nfld. A1E 2H5

Quebec Zone

Aero Club des Outardes, 1690 Chemin St-Damien, Ville St-Gabriel-de-Brandon, P.Q. J0K 2N0
Ariadne Soaring Inc., 735 Rivière aux Pins, Boucherville, P.Q. J4B 3A8
Association de Vol à Voile Champlain, 590 Townshend, Saint Lambert, Quebec, J4R 1M5
Buckingham Gliding Club, c/o 8-365 St. Joseph Blvd., Hull, P.Q. J8Y 3Z6
Rideau Gliding Club, Mr. H. Janzen, 172 College St., Kingston, Ont. K7L 4L8
Club de Vol à Voile Asbestos, 379 Castonguay, Asbestos, P.Q. J1T 2X3
Club de Vol à Voile Quebec, Box 9276, Ste Foy, P.Q. G1V 4B1
Missisquoi Soaring Association, Box 189, Mansonville, P.Q. J0E 1X0
Montreal Soaring Council, Box 1082, Montreal, P.Q. H4L 4W6
St-Jean Glider Club, 900 Blvd. Séminaire, St-Jean, P.Q. J3A 1C3

Ontario Zone

Air Cadet League (Ont.) Mr. G. Fraser, 1105-2175 Marine Dr., Oakville, Ont. L6L 5L5
Air Sailing Club, Box 2, Etobicoke, Ont. M9C 4V2
Base Borden Soaring Group, Mr. J. Gratton, 51 Quebec Loop, Site 3, Borden, Ont. L0M 1C0
Bonnechere Soaring Inc., Box 1081, Deep River, Ont. K0J 1P0
Central Ontario Soaring Association, Box 762, Peterborough, Ont. K9J 7A2
Erin Soaring Society, Box 523, Erin, Ont. N0B 1T0
Gatineau Gliding Club, Box 883, Station B, Ottawa, Ont. K1P 5P9
Huronia Soaring Association, Box 153, Wyler St., Coldwater, Ont. L0K 1E0
Kawartha Soaring Club Inc., P.O. Box 168, Ormewood, Ont. K0L 2W0
London Soaring Society, Box 773, Station B, London, Ont. N6A 4Y8
Club de Vol à Voile Appalachiens, Box 271, Sherbrooke, P.Q. J1H 5J1

Rideau Valley Soaring School, Box 93, R.R. 1, Kars, Ont. K0A 2E0
SOSA Gliding Club, Box 654, Station Q, Toronto, Ont. M4T 2N5
Toronto Soaring Club, P.O. Box 856, Station F, Toronto, Ont. M4Y 2N7
Windsor Gliding Club, Mr. H. Berg, 2665 Boufford Rd., LaSalle, Ont. (Windsor) N9H 1W3
York Soaring Association, Box 660, Station Q, Toronto, Ont. M4T 2N5

Prairie Zone

Air Cadet League (Man. Box 1011, GPO, Winnipeg, Man. R3C 2W2
Manitoba Soaring Council, Mr. G. E. Moore, 1206-65 Swindon Way, Winnipeg, Man. R3P 0T8
Regina Gliding & Soaring Club, 19 Ritchie Cres., Regina, Sask. S4R 5A5
Saskatoon Soaring Club, Box 379, SPO 6, Saskatoon, Sask. S7N 0W0
Swan Valley Soaring Association, 510 Main St. E., Swan River, Man. R0L 1Z0
Winnipeg Gliding Club, Box 1255, Winnipeg, Man. R3C 2Y4

Alberta Zone

Cold Lake Soaring Club, Box 1714, Medley, Alta. T0A 2M0
Cu-Nim Gliding Club, Box 2275, Stn. M., Calgary, Alta. T2P 2M6
Edmonton Soaring Club, Box 472, Edmonton, Alta. T5J 2T6
Grande Prairie Soaring Society, Box 550, Grande Prairie, Alta. T8V 3A7
Namao Soaring Club, Capt. K. Peters, CFB Edmonton, Lancaster Park, Alta. T0A 2H0
Southern Alberta Gliding Association, Mr. D. Clark, 514 Sunderland Ave., S. W. Calgary, Alta. T3C 2K4

Pacific Zone

Advanced Soaring Training & Research Assoc., Mr. L. M. Bungey, Gen. Del. Port Mellon, B. C. V0N 2S0
Alberni Valley Soaring Association, Box 201, Port Alberni, B.C. V9Y 7M7
Bulkley Valley Soaring Club, Box 747, Smithers, B.C. V0J 2N0
North Okanagan Soaring Club, Mrs. L. Woodford, Grindrod, B.C. V0E 1Y0
Vancouver Soaring Association, Box 3651, Vancouver, B.C. V6B 3Y8
Wide Sky Flying Club, Box 6931, Fort St. John, B.C. V1J 4J3

Directors Meeting 4-5 October 1980

St. Foy, Quebec

by: J.W. (Jim) Leach
Executive Director

Arrangements and hosting for the October '80 Board of Directors meeting were provided by the Club de Vol a Voile de Quebec under the capable leadership of their President and Quebec Zone Director, Mr. Alex Krieger. The club had arranged a visit for the Directors to their wave camp at Baie St. Paul for Friday, 3 October 1980. The fortunate ones were Dr. Mike Apps, newly appointed Director for Alberta Zone and Mr. John Williams, Director for Maritime Zone. While soaring conditions were less than ideal, Mike Apps reports that the opportunity for visiting Directors to see local facilities and rap with club members more than compensated.

At exactly 0905 hours on Saturday morning, 4 October 1980, the gavel sounded and the meeting was called to order. I will attempt to summarize for you the highlights of this Directors' Meeting.

DIRECTORS MATTERS

Mr. Alex Krieger was officially appointed Director Quebec Zone, replacing Mr. Terry Beasley who because of change of location was unable to continue.

Dr. Mike Apps' appointment as Director Alberta Zone was formalized by the Board; and Dr. Russ Flint was elected Vice-President by acclamation to replace Mr. Ton Dienen whose job required his service elsewhere.

ORGANIZATION MATTERS

A conceptual paper for long term growth and development was presented by yours truly, emphasizing the competitive aspect of the total Soaring Movement. While this concept still requires refinement and broadening of its scope, it should be ready by 1 Nov. '80. If implemented, seminars will be held in each zone during January and March '81 to discuss the implications of this Plan with as many representatives from clubs possible. Copies will be forwarded to clubs as soon as the paper is finalized.

The immediate and future importance of Provincial Associations representing gliding and soaring in each province was emphasized. The opportunities for both Provincial and Federal developmental funding is contingent on the active existence and activity of a Provincial Association. Directors were requested to review the situation in their Zones and initiate the formation of Provincial Associations in those provinces not already organized.

Mr. Lloyd Bungey agreed to chair the Provincial Association Committee formed at the Jan. '80 meeting.

The Procedures Manual should be available early in '81 and will be available to each club at no cost.

FINANCIAL MATTERS

Dr. Karl Doetsch, President, advised the Board that as a result of his last appeal to The Honourable Gerald Regan, Minister for Sport, an administrative block sum of \$2,000 and financial travel assistance to AGM for Directors and a representative from each province would be provided for '80/81. This amounts to \$4,606. Further funding would be most unlikely until SAC can meet established government criteria. (We need those provincial associations receiving provincial financial support).

A review of the '80/81 budget indicated that SAC was essentially on budget and that the predicted short fall would be less than planned. A shortfall of approximately \$3,800 based on current membership levels and known expenses was indicated.

In reviewing the requirements for the '81/82 budget, it was decided that where possible:

- Membership in SAC would not increase; and
- Alternative fund raising techniques must be stressed.

A Financial Planning Committee was created and Directors are eagerly beating the bush for a Chairman — any CAs, CGAs or RIAs who want to plan the financial destiny of SAC should contact your Zone Director.

SUPPLIES AND SERVICES

A revised list of supplies and costs were approved by the Directors and are to be found elsewhere in this issue.

A SAC mark-up policy for all supplies was approved. All supplies will be marked up 20% above SAC cost. Postage costs will be included in the new cost. Non SAC members will pay 100% over established member price.

Example: Cost to SAC \$1.00, plus 20%; your cost \$1.20 add mail \$1.00-\$2.20. Non member cost — \$4.40. Now you will know why your prices are liable to change during the year as we are required to re-order at higher costs.

MEMBERSHIP CANCELLATION POLICY

It was confirmed that there would be no reimbursement of membership or insurance fees for members who cancel their membership after payment has been received. This also applies to transferring cancelled membership to new members.

REDUCED MEMBERSHIP MID YEAR

Effective 1 September 1981, half price membership will be available on 1 Sept. each year in lieu of 1 Oct. It is hoped this will provide clubs the opportunity to sign new members when the height of the season has passed.

NOTE: This does not apply to insurance premiums which shall remain at 1 Oct. annually.

PUBLICITY MATTERS

We are still looking for a Publicity Chairman. See your Zone Director with any suggestions.

Calendars will be available by 1 Nov. '80. An excellent set of photographs was obtained after much cajoling. **Please SELL . . . SELL . . . SELL (and BUY . . . BUY . . . BUY).** This year's cost will be \$3.50 per.

MARKETING STRATEGY

It was decided that the SAC marketing strategy would concentrate on:

- The retention of existing members; and
- A growth plan for those clubs desirous of expansion.

More on this as the year progresses.

FREE FLIGHT OPERATIONS

We are in need of an editor starting with Jan./Feb. '81 edition, however all business matters including printing, mailing, advertising will in the future be handled here at the National Office. All we need is creativity, imagination and the time to keep to deadlines. See your Zone Director if you are interested. This can be a satisfying experience.

INSURANCE MATTERS

Our total income for premiums to date is close to \$190,000 — our total claims are rising dramatically and it could be difficult to hold the cost line for '81, however Al Schreiter will continue to provide yeoman service in negotiating the best possible rate.

The National Office will play a greater role in insurance matters in '81. Hopefully we will be successful in answering your questions and providing a better service between yourself and the agency.

An attempt will be made to increase liability coverage from \$500,000 to \$1,000,000, if necessary as an option.

Clubs who have any reservation about the SAC sponsored insurance program are urged to attempt to find a more economical plan which offers the same coverage. (Let us know if you do).

Cont'd

RADIO COMMITTEE

Mr. Frank Vaughan of Gatineau Gliding Club is now the chairman of the Radio Committee.

INSTRUCTOR SCHOOLS

A total of 26 candidates participated in the 1980 instructor schools conducted at Pendleton in the east and Chipman in the west.

Bids are required for the 1981 schools. The Gatineau Gliding Club has again offered the Pendleton site for the Eastern School.

Clubs considering hosting an instructors' school should contact their provincial association to apply for provincial assistance and the SAC for classroom and facility requirements.

SAFETY MATTERS

Mr. Eric Newsome from Vancouver Soaring Association was accepted as Chairman of the Safety Committee.

It was noted that very few accident/incident reports had been received for 1980. Clubs are urged to address this matter and forward all accident/incident reports to the National Office. Let us all learn from the lessons of accidents and incidents (anonymity will be maintained). Spare copies of the accident/incident forms are available for those who require them.

SPORTING MATTERS

Nationals 1980

It was noted that 56 entries had been received with 53 aircraft being launched on the first day of competition. An excellent competition with 8 out of 10 days of varied contest days occurred.

The Board sanctioned in arrears the Quebec Provincial Championships held 21-24 May 1980. Procedures are being developed to sanction Provincial Championships in advance. Winners of Provincial Championships are usually eligible for financial assistance to attend National Championships.

Zone Directors will be requesting final bids to host the 1981 Western Regional Championship. Gatineau Gliding Club is hosting the Eastern Regionals. Bids are open to host the 1982 National Championships.

A program designed to develop national and regional officials by SAC will be explored.

Mr. A. Schreiter reported that the National Team selection will be finalized 15 October 1980 and the final decision to participate at the World Championships will be made in January 1981. As there is no government funding for this project in 1980 a shortfall of \$10,000 to \$15,000 is a major obstacle to participation.

AWARDS

Directors will be seeking nominations for Certificates of Honor for those faithful who have dedicated their time and skill in the support and development of gliding and soaring in Canada. This is your opportunity to identifying deserving persons for that long overdue recognition.

FUTURE EVENTS

The next Board of Directors Meeting will be held in Edmonton, Alberta 10 - 11 January 1981.

The 1981 AGM will be held in Toronto, Ontario, 13 - 15 March 1981.

The October 1981 Directors' Meeting will be held 3 - 4 October 1981 at a location to be established.

This concludes my report of what I consider to be the significant decisions taken at the Directors' Meeting in Quebec 4 - 5 October 1980.

Postscript:

The Directors would like to express their thanks to the members of the Club de Vol à Voile Quebec for their hospitality on Saturday evening. We were very pleased to meet this spirited group and enjoyed the food and entertainment provided.

"Some of the faces at the SAC Directors' Meeting in Quebec City during October 1980."



Dave Collard of Regina, Prairie Zone Director.



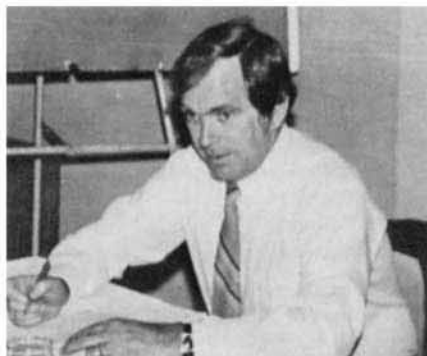
Terry Tucker of Ottawa, National Secretary-Treasurer.



Karl Doetsch of Ottawa, SAC President.



Russ Flint of Winnipeg, Director-at-Large.



John Williams of St. John's, Nfld., Maritime Zone Director.



Jim Leach of Ottawa, Executive Director.

Soaring Odyssey

by Ursula Wiese

It is windstill, the logs glow, flames leap up and my eyes follow their dancing smoke, higher and higher into the dark night where a Cowley star-spangled sky spreads over the small group of pilots from Manitoba, Saskatchewan, Edmonton, Red Deer, Calgary, ... Like myself many of them hope to experience the first wave flight over the Livingstone Range, or dream about their Gold or Diamond height gains ...

There are the usual technical talks, competitions, etc., also complaints about the poor contribution to FREE FLIGHT ...

My mind wanders back to Ottawa and Montreal and the Eastern Canada soaring weather. The previous year, Tony's FAI Gold and Diamond files on the Western pilots had grown thicker and thicker while the Eastern pilots struggled through Silver badges it seemed. So often had we faced April blizzards and soggy airfields, "soup" on a hot summer day or the well-known wash-outs, of course, on the weekends. Only a few good days for the lucky ones seemed to be left at times ... There was no way to become a glider bum ... also Tony wanted to build a passive solar home. So there remained only one choice: the "wild" West.

End of March of this year we packed up to find "our dream country" with a 13-year-old Volvo in top battle shape and The RS-15 (Tony's homebuilt sailplane) carefully tied up in its trailer. Course line south west.

Through the hinterlands of Ohio, Missouri, Kansas to Colorado and of course Black Forest. We had hoped to find good waves off Pike's Peak in early April. Instead, blizzards roared over the high country and pushed us further south over La Veta Pass, which at 9,382 ft. was the highest point we allowed the old car to climb on this trip before dropping into the San Luis Valley of New Mexico. This was beautiful highland country, at 7,000 ft. elevation with clear and cold air, and this day giving howling winds, blowing snow hundreds of feet into the air over the peaks of the Sangre de Cristo Mountains. It was desert country offering magnificent soaring (in season) and an unrestricted view from horizon to horizon to watch the weather systems come and go.

We visited Taos, then Albuquerque and the Zuni factory. We learned about this fine sailplane, but it will not be available to Canadian buyers as it is being sold in the Experimental category to avoid costs and work in obtaining a C of A from the FAA.

Our next soaring stop was Turf Soaring, 20 miles north of Phoenix, near Lake Pleasant and at the bottom of 7,000 foot bare mountains. The temperature scale had reached 40°C and was still climbing. There was a mini-contest on that weekend for practice prior to the approaching US Regionals, called up by the Arizona Soaring Association. Tony was quite excited about this great opportunity to get his first test of desert cross-country soaring.

Here is Tony's story

"On the first day of the contest, I was not about to venture forth on the rather awesome course set for the glass ships. I paddled along the shorter Sports Class route to get used to the territory and flying conditions. The other pilots were helpful in adding the desert lore to my map — the unmarked crop duster strips and areas of truly unlandable terrain. I stayed high.

The next day called for a 245 km triangle to Montezuma, Prescott and return. The first leg was slow with weak "square" thermals in the lower levels. The turnpoint was downwind of a 6,000 foot ridge and I needed to be high to avoid the problem of making the turn and then gliding out of an area of weak lift in generally subsiding air. After spending considerable time dallying on the upwind side of the ridge, a strong thermal finally lifted me out of the poor low level conditions and I was able to stay above 11,000 feet, sufficient to easily make Montezuma and to soar over a second range of mountains to Prescott, and the second turnpoint was achieved. The third leg course line paralleled a line of hills on the uninhabited side so I chose to move in towards the middle of the triangle to approach Turf over more forgiving and familiar ground. Again though, the lift was poor below 8,000 feet, making the last 30 kilometers an education. My final glide wasn't — I had a shaky half hour low over a winding canyon and seguro-covered hills north of Turf accepting whatever scraps of lift the sunward facing walls would give. I was prepared to land on one of the sandbars in the canyon. A hawk pointed me towards a couple hundred feet more altitude. And I moved further along and was surprised to see a tiny airstrip beside the creekbed. This gave me a base to press on a bit more ..."

At Turf, Tony's voice came through asking for the conditions of those sandbars — but none of the local pilots now gathering at the finish gate were able to help (they never/never flew low in this glider pilot's trap! — I believe even a four-wheel drive retrieve was difficult). They argued between themselves, were nervous, it was hot, 45°, we were sweating for Tony and ourselves. After minutes that seemed forever he finally reported "900 feet on final glide" and there appeared the yellow butterfly in the dimming light. A great hurrah from us, Tony finished the task the slowest but most relieved pilot of the day!"

Tony finishes:

"Three days later I flew a 320 km out and return under beautiful cus and conditions so fine the RS-15 just took me along for the ride! Only overdevelopment with rain showers at the end of the afternoon and a late start prevented a 500 km day, I think. The week gave me 20 hours of soaring and three flights of 200, 245 and 320 kilometers. One

day produced the relatively rare "thermal wave" and I was able to fly up the outside of a cloud street to 14,000 feet."

Leaving Turf, we spent a couple of days south of Phoenix at Estrella being hounded (?) by flies — then on to California. We stopped at El Mirage briefly and met Ross Brieglieb. He talked about the woes of southern California soaring sites (El Mirage being sold, Elsinore a SCUBA-divers delight) and then he pointed us to Pearblossom just down the road, and also said "whatever else you do, visit Calistoga."

Pearblossom first, for a day of enjoyable soaring in the San Gabriel mountains just to the south. The topography produced unusual soaring. One could see wide passes both to the east and west holding back a waterfall of cloud from the solid cover towards the coast. The marine airflow could be visualized as it poured in over the desert at both locations. So progressively during the afternoon the lift and cus disappeared from each end of the hills as a result of the encroaching stable air, until only a single band of cus remained over Pearblossom, northward and downwind from the high ground.

With Pearblossom behind us, we motored north on a short sidetrip to Mojave Airport, which has a remarkable collection of airworthy historic military craft and research vehicles. Corsairs were being restored, an old RAF Meteor sat in the sun for any renter and private F86 Sabres abounded. Burt Rutan's stable of unique composite aircraft were on the ramp, and Fred Jirhan showed us all the strange things he is doing with fibreglass. On any given day there is no predicting what might be rolled out of a hangar, or be reporting in on final approach. The place deserves a visit if you are ever in the Los Angeles area.

After a delightful eyeful of a drive up the Big Sur coastline, warm sand to soak the toes, wildlife, an ocean of flowers in all colours, and a further 60 miles north of San Francisco into the Napa Valley, we arrived at Calistoga. The town was "as advertised", which is to say outstanding in every way. Jim Indebro runs a busy and friendly gliderport whose runway ends on the main street downtown. Most convenient. The vineyard-filled valley is bordered on the east by a 3,000 foot ridge featuring a line of basalt cliffs, named the Palisades. A brisk L-19 tow gets you over there for good ridge and thermal soaring and a great view. Just north of the cliffs there is a 4,500 foot mountain whose convoluted slopes make for interesting flying indeed. The remains of an Austria whose pilot had flown in too close without due care and attention lie in one cleft. We stayed over a week, because after a day's soaring was over, there was good food and over a hundred wineries in the area. Being a geothermal area also, every town motel

boasted sauna, hot mineral water swimming pools and mud baths to soak away any aches and pain, or hangovers.

We left Calistoga with fine memories, and several bottles of equally fine wine — 18 months of further aging required. We headed further north along the Californian coast and under redwood trees to Oregon where we found Williamette Valley Soaring Club. We bragged about dragging the sun along with us across the continent as these fine people here seemed to be quite sceptical about their own weather and they allowed that they sure needed that particular service since wet weather had given them only the previous two weekends to fly — and it was May. Sure enough our day was beautiful and Tony enjoyed a four hour flight with a backdrop at the Cascades and Mt. Saint Helen's to the east.

Now I think you should know of some things from me, who was bound to rent someone else's glider at commercial prices. Of course, everyone required a check ride from me at every site. The atmosphere is quite different from Canadian clubs. Line boys take pride in red carpet treatment, all you do is hop in the glider at point of take off. Circuit and landing procedures are often designed around convenience and quick turn-around, so the safety factors are at times less conservative than ours: it was common to make a downwind take-off and an upwind landing with a roll-out between a fleet of parked gliders to a full stop behind others ready for take-off. It certainly shortens retrieve time but I didn't like the idea at all at some locations. Some standard take-off patterns left you no place to go at all if the line broke at 200 feet.

Getting through the check rides was a problem as each site and each instructor required demonstration of different levels of technique to satisfy local standards. Only one asked for a spin recovery, but all wanted a "box-the-wake". I had more check rides in two months than in the past three years together for so few solo flights.

Now the prices!

2-33	\$20 - 28/hr.
2-32, Lark, Blanik	\$25 - 35/hr.
1-26	\$18 - 22/hr.
Instructor	\$16 - 25/hr.
(some charged ground briefing time also)	
Hook-up and first 1,000 ft.	\$ 6 - 10
Tows	\$.30 - .70c per 100 feet

The painful result was that the first hour flight in a 1-26 at each site would often cost \$60 - \$80!! Obviously my air time was very lean. If you are travelling in the USA, it is more economical to drag your own glider/sailplane thousands of miles!

By June, we were strolling through Vancouver's wet streets, headed for Hope where we saw nothing but low rain-laden clouds. Cross-country is not very encouraging here in the mountains and we went on to the Okanagan Valley. There is a beautiful lake surrounded by orchards, dry hills and snow-covered peaks further east. A lot of irrigation brings prosperity to the fruit farmers and I imagined already my world-famous Rumtopf ... But we were both very disappointed; the soaring pilots of this beautiful mountain soaring area live scattered and their organization needs a lot more volunteers and enthusiasts to survive.

Well, on to Alberta and Cu-Nim, in search of our personal soaring Shangri-La. We found a comfortable house in Claresholm, the sunny south of Alberta, just in time for the Nationals, and ideal for our prospective solar dream home. Now more or less settled down we are ready to fly over the enormous fields under this beautiful wide and blue sky with visibility right up to Cape Breton. But so far "poor weather" (stable air) prevented us from the discovery of the so greatly praised heavenly lift and the miles of unspoiled cross-country. They say "it was a wet year", while the Porcupine range west of us is brown from the torching sun and too little precipitation ...

Recalling the many extraordinary events which led me to be soaking by this warm campfire on this chill evening, I decide that I have a great story to tell FREE FLIGHT. I will write, "It is windstill, the logs glow, flames leap up ..."

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Cont'd from page 4

1980 Nationals at Claresholm

The 1980 National Soaring Championships held at Claresholm, Alberta, attracted the largest number of competitors ever (53 gliders were entered) and also provided the largest number of contest days in Canadian contest history — 8 out of 10 possible. The competition was keen with Peter Lamla, Hal Werneburg and Paul Sears winning the Open, 15 m and standard classes respectively, and with other pilots making them work hard to earn these victories. To the Alberta Soaring Council go the SAC's thanks for its splendid and effective efforts in organizing and hosting this contest which has left such pleasant memories with the contestants that some from the East are considering taking up permanent residence in the West!

1980 Western Instructors' Course

While dealing with events in the west, the western instructors' course and an advanced instructors' seminar were successfully held at Chipman under the leadership of Garnet Thomas and Ian Oldaker.

1981 Calendar

The 1981 SAC Calendar — this year with one photograph per month — has been produced with some excellent photographs. It makes a fine gift, and we ask you to support this venture by purchasing one or more. Several have been sent to each club for distribution. Thanks are due to the contributors of the photographs. Inciden-

tally, it is not too early to earmark your special slides for the 1982 Calendar.

Airspace

Dave Tustin, Chairman of the Airspace Committee, collected material from clubs across the country, which formed the basis of a SAC brief submitted to Transport Canada in response to its proposal to reorganize Canadian Airspace. Many questions were raised by the SAC, the answers to which could have a significant effect on our operations in the future, particularly near major urban centres where, of course, our membership is generally concentrated. A response from Transport Canada is still awaited.

Personnel

Terry Beasley has regrettably had to resign from the Board of Directors of the SAC after many years of very dedicated and effective service to our Association, because of duties which took him out of the country for an extended period of time. Many thanks to you, Terry, for your valuable contributions in the past. Terry has been replaced as Quebec Zone Director by Alex Krieger who had already been representing Quebec as an alternate during Terry's absence.

Ton Diening has had to resign for a similar reason, namely due to an out-of-country posting almost immediately after his election. We look forward to further contributions from Ton on his return. Mike Apps replaces him as Alberta Zone Director, while Russ Flint was elected to replace him as Vice-President of the Association.

Frank Vaughn has replaced Bob Barry as Chairman of the Radio Committee whereas Eric Newsome has replaced Max Harris as Chairman of the Safety Committee. We thank all of these members for their contributions in the past and to the new chairmen we wish productive tenures in the future. Any member wishing to serve on these or any of the other SAC committees would be most welcome — the tasks can be interesting and help to keep the Association vibrant.

Good fettling in winter,
Karl Doetsch.

F.A.I. Badges

by Dave Belchamber

The following FAI Badges and Badge Legs were recorded in the F.I.A. Register of the Soaring Association of Canada through Sept. '80.

GOLD BADGE

167	Russ Flint	Winnipeg
168	Paul Pentek	Cu-Nim
169	Keith Williams	Saskatoon

SILVER BADGE

561	Don Hill	Vancouver
562	Doug Bremner	SOSA
* 563	Tom Foote	Bluenose

DIAMOND DISTANCE 500 km (310.7 mi)

Jim Oke	Winnipeg	Cirrus; Pigeon Lake, Man.
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DIAMOND GOAL/GOLD DISTANCE 300 km (186.4 mi) O&R or Triangle

David Hennigar	Winnipeg	HP14T; Pigeon Lake, Man.
Dennis Miller	Regina	1-23; Indian Head, Sask.
David Collard	Regina	Cherokee II; Indian Head, Sask.

GOLD DISTANCE 300 km (186.4 mi)

Keith Williams	Saskatoon	Ka-6; Vanscoy, Sask.
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GOLD ALTITUDE 3000 m Gain (9842 ft)

Russ Flint	Winnipeg	Pioneer II; Pigeon Lake, Man.
Paul Pentek	Cu-Nim	Innisfail, Alta.

SILVER DURATION 5 hour

Don Hill	Vancouver	Astir; Innisfail, Alta.
Mike Maskell	Winnipeg	1-26; Pigeon Lake, Man.
Dale Hogg	York	Libelle; Arthur, Ont.
Connie Petrunka	York	1-26; Arthur, Ont.
Tom Foote	Bluenose	Cirrus; Stanley, N.S.

SILVER DISTANCE 50 km (31.1 mi)

George Graham	Bluenose	SH-1; Stanley, N.S.
Don Hill	Vancouver	Astir; Innisfail, Alta.
Doug Bremner	SOSA	1-26; Rockton, Ont.
Tom Foote	Bluenose	Cirrus; Stanley, N.S.

SILVER ALTITUDE 1000 m Gain (3281 ft)

George Graham	Bluenose	SH-1; Stanley, N.S.
Don Hill	Vancouver	Astir; Innisfail, Alta.
Doug Bremner	SOSA	1-26; Rockton, Ont.
Tom Foote	Bluenose	Cirrus; Stanley, N.S.

C BADGE 60 min. flight

1656	Fred Wockner	Montreal
1657	Inga Plug	Bulkeley Valley
1658	Don Hill	Vancouver
1659	Brian Hollington	Vancouver
1660	Gary Paradis	Rideau Valley
1661	Gregory McKinnon	Winnipeg
1662	Guy Moore	Winnipeg
1663	Elizabeth Bell	Vancouver
1664	Kenneth Deeth	Erin
1665	Tom Foote	Bluenose
1666	Dale Hogg	York
1667	Connie Petrunka	York

*NOTE: Tom Foote's Silver Badge may very well be the first Silver Badge completed in Nova Scotia. Well done, Tom.

CANADIAN SOARING RECORDS AS AT JANUARY 1981

Canadian Soaring Records 1980

No record claims have been submitted during 1980. Thus the table of records is identical to that published last year.

Notes:

"C" indicates that the record was obtained by a Canadian citizen in some country other than Canada. (Citizen's).

"T" indicates a record was obtained within Canada. (Territorial). A record is noted as "Territorial" only when there is a greater "Citizen's" record in the same category.

The absence of either a C or a T implies, of course, that the record was set by a Canadian citizen within Canada.

The second name noted on Multiplace records is the passenger or second pilot on the flight.

A point of interest about the "current" Canadian records is that out of seventy-two categories (18 classes, open/feminine, single/multiplace, not counting the possibility of each record being claimed both in the C and the T classification) there exist only forty-five records, the oldest dating back twenty-three years. Let's fill some of those spaces. Give the Records Chairman some work to do!

Russ Flint
SAC Records

FAI No.	TYPE OF RECORD	OPEN
	Distance (km)	
4.6.1	Straight distance	R.M. Cook 724(C) 1971 D.J. Marsden 676(T) 1968 D.J. Marsden 676 1968
4.6.2	Straight distance to goal	J. Firth 554 1976
4.6.3	Out and Return distance	J. Firth 753 1977
4.6.4	Distance round a triangular course	
4.6.5	Speed over a triangular course (km/h)	
a	100 km	R.M. Cook 113.4(C) 1970 J.M. Firth 103.8(T) 1975
(not FAI)	200 km	R. Mamini 91.6 1973
b	300 km	R. Mamini 110.1 1973
(not FAI)	400 km	J. Firth 77.9 1974
c	500 km	R. Mamini 101.8 1973
d	750 km	J. Firth 87.4 1977
3	1 000 km	NC
	Altitude (m)	
4.6.6	Gain of height	W.F. Chmela 8321(C) 1974 W. Mix 7420(T) 1966
4.6.7	Absolute altitude	W.F. Chmela 12449(C) 1974 W. Mix 9705(T) 1966
4.6.8	Speed over an Out & Return Course (km/h)	
a	300 km	J. Firth 102.7 1977
b	500 km	J. Firth 85.8 1976
	Speed in straight Line to Goal (km/h)	
(not FAI)	100 km	D. Band 59.4 1975
(not FAI)	200 km	J. Firth 70.0 1970
(not FAI)	300 km	W. Mix 108.6 1966
(not FAI)	400 km	NC
(not FAI)	500 km	D. Marsden 97.1 1970

FEMININE

A. Williams	305(C)	1975
A. Williams	209(T)	1973
A. Williams	305	1975
NC		
NC		
A. Williams	54.5	1976
M. Barritt	68.7(C)	1970
NC		
NC		
NC		
NC		
A. Williams	5898(C)	1969
A. Williams	9772(C)	1969
A. Williams	3940(T)	1973
NC		
NC		
NC		
NC		
NC		

MULTIPLACE

A. Pow (J. Leadbeater)	235	1957
R. Shirley (J. Juurlink)	153	1959
A. Williams (E. Bell)	76(Fem)	1979
D. Marsden (E. Dumas)	422	1979
NC		
D. Marsden (M. Jones)	98.1	1975
A. Williams (M. Stone)	31.0(Fem. C)	1970
G. Buhr (P. Tingskou)	42.8	1969
D. Marsden (E. Dumas)	69.9	1975
NC		
NC		
NC		
NC		
R. Shirley (P. Campbell)	7100	1961
A. Williams (M. Kossuth)	2987(Fem. C)	1970
W. Chmela (A. Van-Maurik)	10390(C)	1975
R. Shirley (P. Campbell)	9085(T)	1961
A. Williams (M. Kossuth)	4206(Fem. C)	1970
W. Chmela (H. Rominger)	65.0(C)	1976
NC		
W. Chmela (R. Zimm)	47.0	1971
NC		
NC		
NC		
NC		
NC		

HANGAR FLYING

Official Contest Results:

U.S. Nationals

15-Meter Class, June 17-26;
Springfield, Ohio, USA

1. K. Striedieck	ASW-20	5561
2. R. Gimmey	ASW-20	5516
3. T. Beltz	ASW-20	5489
4. W. Scott	ASW-20	5442
5. B. Greene	ASW-20	5428

Standard Class, July 1-10;
Harris Hill, New York

1. K. Striedieck	ASW-20	4608
2. R. McMaster	ASW-20	4411
3. L. Horvath	ASW-20	4335
4. M. Opitz	ASW-19	4314
5. D. Welles	1-35	4156

Open Class, July 15-24;
Hobbs, New Mexico

1. D. Butler	604	7772
2. G. Moffat	Jantar 2	7745
3. L. Horvath	Nimbus II	7424
4. K. Striedieck	ASW-17	7185
5. B. Greene	ASW-17	7119

German Nationals (winners)

15-meter Class: Gatenbrick (Ventus)
Standard Class: Gloeckl (LS-3)
Open Class: Holighaus (Nimbus IIC)

Championnat provincial du Vol à Voile

Club de Vol à Voile de Québec
Aéroport de St-Raymond
21 au 24 juin 1980

Comme vous le savez, nous avons tenu à St-Raymond les 21, 22, 23 et 24 juin dernier le premier championnat provincial de vol à voile.

Malgré des conditions météo décevantes, nous avons quand même pu tenir une journée de compétition complète lundi le 23 juin.

Avec le départ de tous les pilotes des deux

catégories (LIBRE et SPORT) dans des conditions marginales quant à l'ascendance et à la visibilité, nous avons quand même vécu une véritable expérience de compétition.

Je pense que le Club de Vol à Voile de Québec et particulièrement les organisateurs de la compétition doivent se féliciter du travail accompli. Toutes les opérations reliées à la compétition se sont

déroulées sans anicroche grâce aux efforts de l'équipe de départ, de nos pilotes de remorqueur qui ont "nettoyé" le champ en un temps impressionnant (Omer se vante encore de ses performances avec le CITAB-RIA), des excellents "briefings" de Denis et de la contribution de tous les autres.

Nous félicitons nos gagnants des deux catégories, Maurice Laviolette sur Std. Cirrus en classe libre et Denis Pépin sur Ka6 CR en classe sport.

Vous trouverez les résultats de la compétition:

*From "Le Pingouin", Club de Vol à Voile de Québec, Sept. '80.

No.	Pilote	Planeur	Immatr.	Lettres	Classe	Points Total	Atterrissage	RANG
1	Bisscheroux	HP 14	DE	DE	Libre	648	St-Stanislas	5
2	Trent	Std. Cirrus	OO	ET	Libre	394	St-Alban	7
3	Pépin/Di Pietro	Std. Jantar	JG	DB	Libre	228	St-Marc	8
4	Laviolette/Krieger	Std. Cirrus	IR	IR	Libre	1000	St-Narcisse	1
5	Gairns	Std. Libelle	GE	GE	Libre	980	Lac-à-la-Tortue	2
6	Pille	Kestrel 19	KQ	KQ	Libre	862	Lac-à-la-Tortue	3
a7	Werneburg	Kestrel 17	AW	AW	Libre	704	Deux-Rivières	4
8	Palfreeman, B.	PIK20B	UL	AS	Libre	438	St-Thuribe	6
9	Mathieu	PIK20B	DM	CW	Libre	—	St-Raymond	9
10	Roth	Ka6 E	KA	KA	Sport	695	St-Alban	2
11	Rochette	Blanik	OX	OX	Sport	128	Ste-Christine	5
12	Boily	Blanik	YR	YR	Sport	128	St-Léonard	6
13	Pépin, D.	Ka6 CR	DT	DT	Sport	1000	St-Raymond	1
14	Palfreeman, R./Lach	1-26	EI	EI	Sport	168	Ste-Christine	4
15	Page	B 4	DR	DR	Sport	670	St-Casimir	3
16	Hyam	Bergfalke	HC	HC	Sport	—	St-Raymond	7

CHAMPIONNAT PROVINCIAL DE VOL A VOILE*

CLUB NEWS

WINNIPEG GLIDING CLUB

The 1980 flying season was a rather special one for the Winnipeg Gliding Club. After an unusually "kind" winter which saw relatively little snow and mild temperatures, and for a change no threat of flood from the Assiniboine River, flying began with the Instructors Weekend on April 26-27, followed by three more weekends of the finest soaring weather in the history of the W.G.C.

On May 3rd, Jim Cumming (Phoebus C) and Jim Oke (Cirrus 75) completed 300 km triangles, with the thermals kicking up to over 13,000 feet ASL. The above mentioned pilots along with Russ Flint and Frits Stevens had Gold altitude climbs with Frits achieving a gain of 11,650 feet. Thermal strengths of 1,000 feet per minute were the rule of the day. What a ride!

Dave Hennigar on May 16th did an O and R of 336 km, and with the long weekend came some exceptional soaring flights, headed by Oke's 508 km triangle, the first such closed distance flight of this magnitude ever flown out of the W.G.C. Cumming and Flint flew triangles of 360 km as well, with cloud bases upwards of 12,000 feet. Stevens flew a 200 km triangle, and John Bendorf (Duster) and Ray Amyot had silver altitude gains.

Later that same weekend Dave Tustin did an O and R of 310 km, Oke and Cumming completing 310 and 225 km triangles respectively, despite very strong winds. Cloud base was once again at 13,000 feet.

And then it happened! Mount St. Helens erupted and with it came somewhat of an end to the "too good to be true" soaring conditions. From that point on, it was hard work but several pilots rose to the occasion (a pun, I suppose?) The remainder of the season saw the attaining of many Silver badge legs. These were by Mike Maskell (altitude and duration), Bruce Wilkin (altitude and distance), Dave Sawatzky (altitude), Alf Thiele (altitude), Jean Audette (duration), Kris Johannesson (duration), and Ted Lightly (altitude). And through it all, many A, B, and C badges were earned and excellent non-badge flights flown.

With July came the Nationals and a minor exodus of pilots and crews to Claresholm from Pigeon Lake (W.G.C.'s home base). Actually it was the largest representation from Winnipeg in several years, with Jeff Tinkler (Astir CS) and Jim Oke (Cirrus 75) entered in the Standard Class, and Jim Cumming (Phoebus C) in the Open Class. A great time was had by all and Jim Oke also managed to finish 5th out of 23 competitors in his class.

At the home field, several major projects were undertaken. A portion of the field was leveled and seeded, and where the river has narrowed the south end through excessive erosion, large quantities of fill were used successfully to regain some of the original width. More picnic tables and a barbeque pit in the campground area have made the monthly social events that much more en-

joyable. Extensive refurbishing of our tow planes was carried out as well. All in all, the sport of gliding is alive and well and living at Pigeon Lake Glider Port, 35 km west of Winnipeg on Highway 26. Great soaring in '81!

James Cumming, W.G.C.

BLUENOSE SOARING CLUB

As of the end of September we have put over 1,200 flights into the sky. Poor weather in July slowed us down a bit but the thermals have improved since then. Nevertheless, rarely has this writer been in a thermal that provided steady lift throughout the circle, regardless of bank angle or speed. Typically the vario would vary about 6 knots in one turn. If you're like me and find it difficult to accept this nonsense; then you find yourself centering in sink in no time.

WINCH & CABLE

Our launching system has been working smoothly. With the new fairlead pulleys and the music spring steel cable we are rarely delayed due to snags. The cable will last us the season, but due to the learning process we expect even better performance next year. We had increased our retrieve speed to 20 mph only to find that our transmission would get hot. If anyone has any suggestions on a fix, please drop us a line. The crude Schweizer hook has given us trouble and we are now attempting to get MOT approval to installing a Tost hook on our 2-22.

Our "permanent fix" splice detailed in the last issue did not work out due to the cable fatiguing at the end of the splice bullet. So we have used our battlefield fix, which works well but has to be replaced every 100 launches or so. But with the experience we now have with the cable, we expect few, if any, breaks next year.

With a profit margin of over 100% per flight, our Treasurer has been known to give the winch a pat on the back at the end of a good day.

CLUB FLYING

None of our new solo pilots got their 5-hr. flights during our flying week in August. This was due to either lack of proper weather when someone was ready, or the Ka-7 being returned to normal duty when the allotted attempter could not come to fly. Dick Vine came the closest, being shot down by a fast moving warm front after 3:40 in the air. Norm Stacey kept the 2-22 aloft for over 2½ hours, and then came down to let someone else have a go. Robbie Francis and Ralph Keeping were our solo pilots since last report. Robbie in the 2-22 and Ralph in the Ka-7. Both have tasted the joys of soaring; Robbie has become the master of soaring the 2-22. Since the 2-22's panel has been graced with a Winter mechanical vario, it has become a common sight in a gaggle; more than one hot-shot pilot after returning from afar at low altitude, has been saved from landing by humbly tucking in under the 2-22.

CROSS-COUNTRY

The mean and stingy nature of post mid-summer thermals have kept the single seaters closer to home. Ralph Olive in the Cirrus went off visiting local farmers. Jack Dodds committed a 60 km stretch of a Gold O&R to memory by beating back and forth three times. Chris Purcell proved the most adventuresome by running off to New Glasgow (130 km) and then decided to have dinner and enjoy the view rather than run for home. The fact that one of his partners (this writer) lived there and could facilitate the retrieve did possibly enter the decision process. Chris then attempted a Diamond Goal O&R but had to land within sight of the turnpoint when a solid overcast cut him off. His landing was witnessed by a farmer and his 17 children who were picking apples in the family orchard. Chris reports that the disassembly was done with surprising ease.

The most exciting news is the appearance of a new single-seater on the field. Doug Girard purchased a Skylark 4, C-FXDN, and it certainly adds grace and charm to both the take-off grid and the skies around Stanley. Doug has averaged 3½ hours per flight whilst getting acquainted with his new glider and come next year us x-country flyers are looking forward to having the Skylark with us when we run off to discover new soaring skies.

CLUB PLANS

Jack Dodds is taking the Austria to Mt. Washington for the October Wave Camp. Some of our members are looking for wave in more local environs by scouting out the Cape Breton Highlands. We are planning our Year End-Halloween Party for Nov. 1st.

We would like to expand our launch capacity and are looking at the Davis winch detailed in the Aug. issue of Soaring with interest, especially the arrangement to allow double-drum launching. The Club is still looking for a third 2-place glider, of Ka-7 performance or better.

A NEW TOWPLANE FOR CANADA

After skipping over the hydro wires at the end of our runway for too long and too close, we finally found a way to acquire a brand-new towplane.

The picture shows our President Al Kirby receiving the keys to our "WILGA 80" from Airtech Canada President Bogdan Wolski.

This Polish-built aircraft is now assembled here in Canada, is fully Canadian type approved and is serviced by Airtech Canada in Peterborough, Ontario.

A demonstration of 99 tows last year showed an average towing time of 4 to 5 minutes for a 2,000 ft. tow. The costs per tow were less than that for the Supercub and with a rate of climb of 1,240 ft./minute. We are now clearing the wires at the end of our 2,000 ft. runway by more than 100 feet.

Other impressive features are: superb visibility, dual controls, constant speed propeller, built-in tow-hook is standard equipment, four seater, shock absorbers on main wheels and on the steerable tail wheel. Fuel consumption is approximately 8 gallons per hour and for towing operations approximately 9 to 10 gallons per hour.

Our towpilots had no problems changing over from the Supercub. All other club members are equally excited about our new towplane and are looking forward to be able to fly it also as soon as possible.

A "Pig Roast" completed the big celebration of the day. It was very well organized by our Graham McKay, who laboured over the 80 lbs. piglet from six in the morning until seven o'clock in the evening.

If anyone wishes to have more information on this terrific towplane (or on a successful pig roast), my telephone number is 1-705-743-4938, or he should contact B. Wolski direct at Airtech Canada in Peterborough, telephone number 1-705-743-9483.

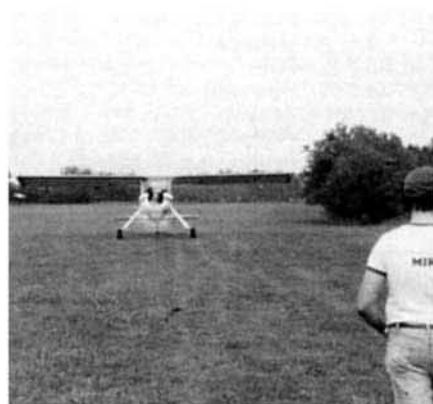
We may be small in numbers, but we believe in safe operations and therefore try to get the best equipment possible.

H.E. Ksander
KAWARTHA SOARING CLUB, INC.
OMEMEE, Ontario



"Bluenose Soaring Club's Dan Morrison and new student Gisele Berglund look over C-FACE, the 2-22E that joined BSC in 1979."

— Photo, Chris Purcell, Pentax 6x7



A Beautiful Wave Flight I'd Rather Forget

by Tony Burton

My Thanksgiving Day wave flight at Sugarbush gave me more excitement than I ever want to have again in a glider.

Sunday night gave the promise of a good wave for the next day as the moon lit up the edges of two lenticulars over the valley. However, as cold pilots wandered around the airfield Monday morning, the usual low cloud was back again, scudding across the valley and hiding tops of the back ridge to the east in snow flurries. However, the wave was working, as an occasional gap in the cloud to the west showed that an enormous cap was sitting on Mt. Ellen. The sky closed over completely for some time but by 11 a.m., a wave window opened over the airfield which promised to be fairly consistent.

A 2-33 towed off, and by using ridge lift, was able to contact the wave directly from the ridge. It was obvious that the low cumulus-type cloud blowing through was showing some lenticular smoothness as it got to the ridge line.

Taking a 3,000 feet tow to the same area, I released and found 200 fpm lift. At first, it was difficult to get established in the wave because flying at the release altitude meant winding around much broken cloud which got in the way and cut visibility, and the glinting light from snow particles in the air made the ground invisible when looking towards the south. As I got a little higher however, I was able to see the general features of the lenticulars above me to get better oriented in the wave and also see down into the valley through a larger area of gaps.

The sight was spectacular. To the west stood a smooth wall of cloud extending up to 20,000 feet — a gigantic cap to Mt. Ellen and the other mountains hidden underneath. Above and behind me were three sets of stacked lenticulars. The low one I was now climbing in front of at 6,000 feet was rather ragged, the middle one was thin and smooth at about 10,000 feet, and the highest at about 16,000 - 20,000 feet was very large and extended a bit more forward of the others.

The lift varied as I explored around, but I climbed steadily and enjoyed the expanding view. I passed the middle lenny and the lift improved. However, the view below to the ground became steadily poorer because of the increasing altitude, and the brightness of the surroundings compared to the gloomy fragments of valley floor, visible through the clouds and snow clogging the window. At around 14,000 feet, the RS-15 was climbing steadily at 400 - 500 feet per minute, and the lift continued to be strong as I flew along the front of the top lenticular. I broke off the climb at 18,000 to ask for further clearance. Eventually, the radio answered with an approval to 22,000, but

before it came I had decided that I better get down and was descending.

With full flap and a hard steady push on the stick, the glider dropped smoothly in a stable turn at 60 kts at well over 1,000 feet per minute down. I was to be thankful for that characteristic of the RS-15.

The strong nose-down attitude prevented the compass from turning, a detail I had never really noticed before but became acutely aware of as the window continued to close beneath me. In retrospect, I should have broken off the descent at about 10,000 feet and stayed at that height in the wave until conditions improved. I got myself in trouble and committed to a descent through the cloud in what seemed to be an amazingly short period of time. As I approached the lower cloud level around 8,000 feet, its "levelness" quickly turned into canyons and bowls of murk on all sides, and the last shred of hole filled in below.

Feeling very apprehensive now, I continued the descending turn. I knew any changes in flap setting or control motion would affect the stable attitude of the glider and assure me of an instant case of vertigo once cloud was entered. At about 5,500 feet, in I went near the bottom of my bowl. In the greyness of the cloud I had no sensation of motion at all, I just put all my effort into "freezing" the control position, making only tiny corrections in my push on the stick to hold the air speed. I was worried — scared, I didn't know where I was, and I knew that cloudbase was only a few hundred feet above the ridge-top.

After unremembered seconds, a short flash of trees appeared rotating below with a dusting of snow on them. I was close to the ridge, but which side? More mist, then I was clear. Rolling the flaps up and getting straight, level, and oriented, I was presented with the most awful sight in my gliding career. A ridge line in front of me was uncrossable, the ground was three or four hundred feet below, and all I could see — anywhere — were trees and more trees. Banking around, I saw the bowl of trees slope away gradually in one direction, and I followed, gaining a little "freeboard" as I went. At this point, my state-of-mind was in a shocking condition, and I swore, "Burton, you've really gone and done it to yourself this time" (or words to that general effect).

I fled towards the lowering ground for a full minute without sighting one sign of civilization, before rounding a small spur of the ridge and seeing an abandoned barn on a tiny hillside, grown-over field. While approaching this last-resort landing spot, I finally got a glimpse of the valley bottom, a narrow slot hidden down within many small humps, and holding a stream, and a paved

road. Turning towards this final hope of improvement, a few houses appeared around another corner and a mile along the road salvation at last in the form of a long grassy field between two roadside ridges. There were tall trees at either end. By now my head was racing along and I was flying on pure adrenalin, not cool reason.

The circuit was low and rough, and I was quickly changing air speed and flap setting to set up the approach over the trees. As I passed over them on final, I realized that I was going very fast along the ground — I was too high, too fast, and flying downwind. That long, easy field was disappearing under the wings at an alarming rate. The glider would not settle and with three-quarters of the field behind, it was still flying. I flew it onto the ground and held on, while the barbed wire fence and trees grew rapidly closer.

The only way I was going to get stopped was to ground-loop the glider. At about 200 feet from the fence, I was still moving at about 30 miles per hour when I forced the right wing onto the ground. Nothing happened for a second — and then everything happened. As the tip plate dug into the dirt, the glider slewed sideways along the ground, forcing the left wing into the dirt tip first. Amidst all the banging and crashing, the tailwheel fairing flew past the canopy. The glider continued rotating and then stopped with one last lurch pointing back towards the direction it had come.

After all that had just passed, the silence was deafening, and as I unstrapped myself and climbed out, I fully expected to see a broken tail. Joyfully it appeared to be all right, and by no skill of timing on my part, the glider had come to rest with the tail just four inches from the barbed wire!

Looking back at the signs of my ground loop, the wing tip plate had cut a groove in the dirt for about 40 feet before it caught, and other gouges in the turf indicated that the glider had skidded sideways and backwards for over 100 feet. On closely inspecting the RS-15, the tailwheel assembly was badly bent along with both wing tip plates, and the tail surface attachment points had been overstressed from the large side loads the tail had experienced. That the glider was intact at all was a great testimony to Schreder's design.

Going back to the cockpit, I radioed that I was safe and would find out where I was. So I was left to finally calm down and contemplate my sins. An angel was surely working overtime on my behalf on that flight — a flight I relived many times that sleepless night.

The first person to arrive on the field fed me hot coffee and a healthy shot of rye out of a paper cup. Thanks.



"The author posing with his sailplane — source unk."

"The View From the Cockpit"

by Jim Oke

In the previous issue of Free Flight there appears the usual day-by-day and blow-by-blow description of the 1980 Canadian National Gliding Championships. The following is a more personal account of one particular contest day and one pilot's tour of Southern Alberta as seen from his cockpit. Before beginning, the reader should be forewarned that no particular competition secrets or techniques are revealed. Still, it was a highly interesting flight and a day that

I (and perhaps others) will remember for some time.

July 17 (contest day Seven as it turned out) began bright and clear with good promise that the quite strong conditions of the previous two days would continue. The last two tasks (270 and 257 kilometer triangles in Standard class) had been rather short for the existing conditions. Especially the day before, when 21 of 22 standard class pilots had made it around with Paul Sears leading the way at over 90 km/hr. There had been no really long tasks to this point in the contest and with only two days left, the smart money was guessing that the task committee would have ambitious plans for all three classes.

And so it was. All three classes would fly the same task, a 328.7 km, roughly equilateral triangle from Claresholm southeast to the sugar factory at Taber, north to an obscure railroad/highway overpass near Cassils and then home. The Standard Class would take off first. As launch time approached conditions seemed to be developing as anticipated except that a few innocent looking rainshowers seemed to be developing deep in the Porcupine hills and moving towards the field. Promptly at noon the launch began with Std Cirrus Juliet Oscar and myself on board. Releasing in reasonable lift I started an easy climb up in order to wait for the start gate to open, and was soon joined by numerous other ships from my class.



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Looking east on the courseline conditions looked good and I was mentally planning the first few thermals when my attention was brought back to more immediate concerns when it began to rain in my thermal. The rainshowers were building and moving out of the hills quickly now and it appeared that Claresholm was in for a good downpour shortly. I had been climbing quite evenly with a few Libelles to this point and I had a graphic lesson in the aerodynamics of thick airfoils/thin airfoils and raindrops when they rapidly left me behind. Seeing little future in being shot down by the rain I ran a few miles north of the field and finally located a small weak thermal and tried to climb in it. Meanwhile the radio was coming alive with complaints from those later in the launch being towed off into the rain and the calls of some already landing back at Claresholm. After struggling a few hundred feet upwards I saw a ship which was climbing well even farther north and went over to join him. Despite the fact that he left as soon as I arrived, the lift was good (5 knots plus) and I had an easy climb to 8,000 feet or so as the start gate opened for standard class.

The worst of the rain had moved off and so after a decent interval to let some markers get out on the course (this is known as strategy in some circles and leeching in others) I returned and ran through the gate rather carefully and slowly about 12:45. Directly out on the courseline conditions looked dead due to the recent rain, so I joined a rapidly growing gaggle just north of the town of Claresholm. After a few turns in 1 or 2 knots things were getting rather crowded so I moved off a few hundred yards and was rewarded with five knots. The remainder of the gaggle saw things differently and stayed put, so after a few fairly hairy nose to nose encounters I moved farther off and found even better lift. After circling for a while longer I rolled out on course and climbed away quite nicely under a powerful, dark cloud street. Nearing Nobleford I stopped to circle again in some really strong lift (10 knots plus) and was feeling rather smug about my quick getaway. This lasted only one turn as half a dozen ships I had

left "far behind" flew by high and fast and even passed up my thermal.

I rejoined the group as the low man this time and we worked a few isolated clouds as the street came to an end. In authentic "press on regardless" fashion I moved on quickly looking for another big thermal but I only succeeded in getting low. A few miles southeast of Picture Butte I was down to about 800 feet AGL and within a few hundred feet of the field elevation at Claresholm. I was looking hard at possible fields when a good solid bump hit and I had a good climb up to the cloudbase. Cloudbase in the Taber area was clearly rather lower and I moved on more cautiously this time. The others moved off with their own plans and I found myself alone. But not completely alone, because just west of Taber a flock of gulls down low marked a nice thermal and my nose confirmed that it was indeed the town dump they were soaring over.

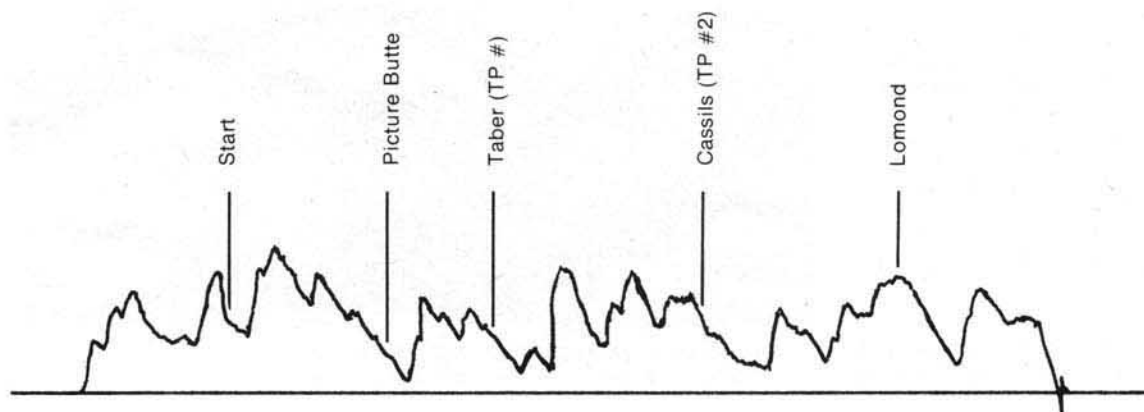
After photographing the sugar factory (Taber is the center of Alberta sugar beet country) I headed north and decided to remain west of the Oldman river to avoid the extensive irrigated area to the east. This bit of tactics didn't seem to be working too well and as I got lower and lower I moved over to follow the secondary road running north past the Taber airport planning an easy retrieve if necessary. Later I found out that the bridge was literally out at the Oldman river causing 100 miles detours for those who had followed the same plan. As they say, ignorance is bliss.

After one false start on a climb I again found myself fairly low and more in frustration than by plan flew out under the downwind side of the cloud I was searching under and then had the best climb of the day out in the sunshine up to a refreshingly higher cloudbase. While tiptoeing up past Vauxhall to overfly the wide band of irrigated land there I had another good climb proving once again that lift is where you find it regardless of theory about wet ground and so on. Setting off from cloudbase again I had the somewhat malicious pleasure of looking down low at a couple of fellow competitors obviously scratching hard.

The rest of the run up to Cassils was fairly straightforward with reliable, well spaced lift. (Definition of straightforward: a word overused by top competition pilots at pilot's meetings in order to disguise the skills they used in winning the previous day's task). Looking west to the center of the triangle and the final leg the cumulus were joining to form a rather ominous looking dark mass which was cutting off all sunshine over quite a large area. Some dustdevils and rising plumes of smoke and dust suggested that some convection was still present but it looked advisable to press on quickly. The flash of a few wings over the turnpoint was enough to confirm the decision for me.

Rounding the Cassils turnpoint (which was surprisingly easy to find after all the worries expressed in the morning) the choice was either to fly directly under the big dark cloud mass or else deviate north of the courseline to remain in the sunshine. A short time later found me at 800 feet (again) coasting smoothly along in the sunshine. Choosing the best of the available fields, I dropped the water I had worked so hard to carry this far and was preparing to land when I spotted a few birds circling nearby. Joining in I found something around zero sink and decided to hold on and wait to see if something useful developed. Twenty minutes later I was over the same field at the same altitude holding in the only bit of sunshine for miles around. The reluctant thermal finally broke loose and gave me a few thousand feet to work with.

I headed southwest of Bow City into some pretty rough terrain where some earth moving equipment was working and sending up a suspicious amount of dust. After a slow climb back up to 7,000 feet I set off again under a grey overcast. On the radio, 123.5 mhz was coming alive with reports of outlandings, lost crews, lost pilots, and the like. After listening for a while and attempting to relay a few messages, I switched it off and flew along in almost perfect silence (my electric vario had also given up the ghost by this point). To my surprise, and despite complete lack of visual clues to lift, it was possible to again fly straight ahead and



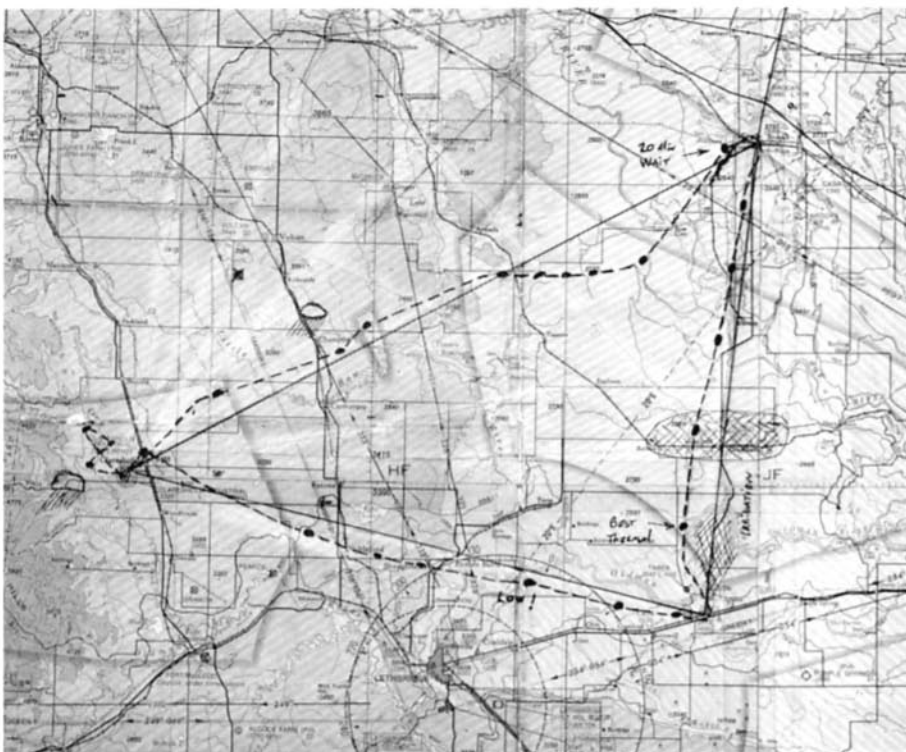
"Barogram of the Author's Flight"

climb slowly. Tiptoeing along at close to minimum sink speed I reached the end of the lift near Lomond at about 8,000 feet and began what looked like a final glide to the Champion area. Crossing the Travers reservoir, a heavy shower far to the north produced some impressive lightning bolts in contrast to the stillness of the air I was slipping through. A few miles to the east of Champion I made a call to my crew to stand by the phone for an outlanding report. A rainshower building over Champion appeared to promise a damp landing. Getting closer (and lower once again) the rain this time seemed to be kicking off some lift along its leading edge and I was able to start climbing again. As I got higher I cancelled my imminent outlanding call and started consulting my glide calculator for the possibility of making it home. The shower kept growing and moving east and I was getting worried about being cut off from Claresholm. About this time, to my surprise, another sailplane arrived nearby and started to climb on the south side of the rain. A rumble of thunder near me encouraged me to move over and join him; it turned out to be Jim Carpenter in his ASW-19 Zulu-Zulu. The rain was occasionally quite heavy as we climbed to about 7,800 feet where the lift died.

Setting off together, we were able to improve a rather marginal final glide with a few hundred more feet near clear lake in the last lift of the day. Then a quick run across the finish line and I was home to land after 6 PM after about five hours on the course. The other classes had been badly handicapped by late starts due to the rain and had distance days only. In all 42 other gliders landed out which made my post-flight beer particularly refreshing.

Looking back some months later now, I think the reason that this particular flight was worth remembering was the wide variety of lift and weather encountered. There was rain with lift, rain without lift, some excellent cloud streets, good individual thermals, and even some lift where none would normally be expected. In a technical sense, there are some obvious mistakes that I made; such as pressing on hard and getting unnecessarily low when the weather and lift had obviously changed ahead, dithering about in marginal lift when better stuff was to be had nearby, and a fair bit of gaggle-chasing (the sheep herd instinct). If there is any lesson to be learned I suppose it would be the value of persistence in completing a task. Even when quite low it is worthwhile hanging on as long as possible as sources of lift can be quite unexpected and a flight can be saved quite often with the right combination of perseverance and patience. An important qualification, of course, is that safety must remain paramount and a pilot must have a very clear picture of his or her abilities and a good landing field in range before attempting any low altitude circling. Also a series of low altitude saves makes for inefficient cross-country soaring.

Finally, a personal thanks to the organizers and others at Claresholm for providing first-rate facilities and weather for the 1980 Nationals. The flying will be remembered long after the score sheet is forgotten.



"Chart Shows the Author's Flight Path around the Course from Claresholm. (Note: Gov't Aeronautical Chart reproduced for

illustration only; not to be used for navigation.)"



"The author with his sailplane after his national flight on 17 July '80."

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Our friend the glory bow

Peter Sheppard

Floating along with the feel of the air at our fingertips and the mysterious sculpture of cloud banks around us, we as glider pilots enter a world of our own. In the joyful bucking of a spring thermal, or the smooth up lift of late afternoon, we achieve a feeling of belonging to the space we fly. Here is an ethereal quality and one which is constantly changing. The qualities of light are ever-varying, the rays from the sun are redistributed in a myriad of ever new combinations.

One of my delights is the Glory-bow which follows us through the sky. A faithful friend! This halo of the heavens seems to belong to us in our cockpit rather than the surrounding sky we're passing through — almost as if it was of the mind rather than the physical world. But it's real enough! There we are, very much alone, clouds diminishing through space to empty horizons, and suddenly, there he is dancing along beside us. In the centre, a shadow silhouette of our glider. Around it, a strange bright glow surrounded by a ghostly coloured ring or series of concentric rings. Like an elusive colour target it speeds along the face of clouds on the opposite side from the sun, weaving and dancing in perfect time, with our shadow constantly in the illuminated centre.

For power aircraft the Glory is usually a fleeting experience but glider-pilots, more than any others, are in a position to observe this optic phenomenon. Moreover, we can "stop" and experiment with its effects!

To see the Glory we need to be in line between the sun and a suitable and reasonably close cloud face; in front of the cloud but above cloud base.* The glowing rings have their common centre on the extended line connecting the sun past the observer to the cloud. The pilot sees the rings of coloured lights around his shadow cast on the neighbouring cloud bank.

At Paraparaumu suitable conditions are not uncommon. The line of local hills run NE/SW whereas to the north-west lies the Tasman sea. The air coming from across the Tasman often pushes up into a sunlit cloud bank along the hills to form nature's beaded-screen. Sometimes in glistening towers, sometimes with ghost-like softness. When we fly in front of these lifting clouds we are in-between the sun and the cloud face.

Observation quickly shows that Glory-bows differ in character from time to time. So we look up the usual lay explanations of this phenomenon. The first thing the observant pilot notices is that the facts don't fit the old theory. Now we know the analagous story about the bumble-bee. According to science, the bumble-bee, due to its total weight, wing area and aspect-ratio, is quite unable to fly. The bumble-bee however, being ignorant of this Science proceeds to

fly and make a little honey each day. Similarly with ill-fitting theories about the Glory-bow, glider pilots, being at least as wise as bumble-bees, continue to enjoy their flying regardless.

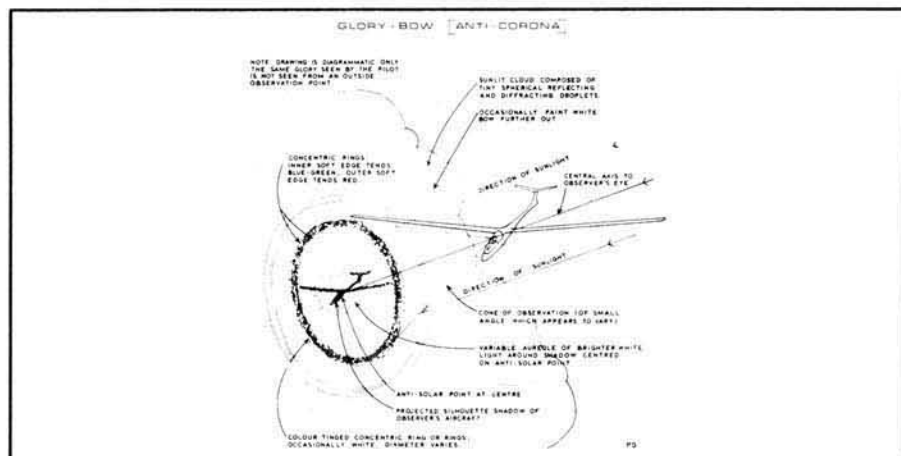
Lay theories on the Glory seem to confuse it with simply being able to see the whole ring of a common shower rainbow due to elevated position. They sometimes state the certainty of angles for primary and secondary bows of 42° and 53° . But any glider pilot worth his observational salt knows that the Glory, considered as a cone from the observer's eye, is based on a much smaller angle. In fact the apparent size of the Glory is seen to be inconsistent. Also, it's immediately obvious that the Glory has a much more pastel appearance than the shower rainbow, heightened by the glowing whitish aureole surrounding the central anti-solar point.

The most convincing explanation I have found is that by Tricker in his "Introduction to Meteorological Optics". Yet even he states "A good deal of progress has been made in recent years towards a better theory of the glory, although the position is far from being finalized."

Most of us know that the two main bows of the common shower rainbow are caused by the internal reflection and refraction inside rain drops. However, there is another way that sunlight can be "broken" into its constituent colours and that is diffraction. This is the deflection and spectral break up of a wave front of light when passing close by the edge of a body or through a very small opening, to form differently coloured bands.

The shower rainbow generates in relatively large falling droplets. The Glory, however, forms with cloud particles. Incredible as it seems, these particles can be as small as only 10 times the wavelength of light! The diffraction process becomes much more likely.

The general explanation of the Glory is obviously that it is an optical effect caused by the break-up of sunlight by cloud droplet particles, and its return to the observer. More particularly, it seems that the light is polarized and diffracted backwards by the tiny spherical particles and hence returned back with diffraction interference towards the onlooking pilot. The glowing aureole round the centre and the partially coloured ring or rings are then seen.



Sometimes we can see a similar luminous circular area around the sun. This is the direct Corona and is caused by the diffraction of light around either water or ice particles. When the Corona is fully developed there is a series of delicately coloured rings similar to those of the Glory. Our friend the Glory is seen, in different circumstances, in the opposite direction and hence is sometimes called an anti-corona.

Soaring our man-made birds through the sky we may have been too busy outwitting our varrios to notice all the variations of the Glory. The central aureole may or may not be bright relative to the main ring; there may be more than one ring; the ring diameter and band width varies from one time to another; the colours may be clearly discernible or the ring(s) may appear as predominantly white; and predictably, the size of the central shadow occupies a varying proportion within the main ring.

Most of these variations are explainable in terms of differences in polarization and diffraction interference affected by the distribution of cloud droplet sizes. It seems the brightness of the centre depends on the degree of polarization and the size of droplets or more particularly the variation of sizes. A greater range of droplet sizes gives a brighter centre. Most clouds are polydisperse particularly at the outer edges where Glories are formed — that is they are composed of drops of varying sizes. This also means that there is some overlapping of the spectral distribution and hence, presumably, a whiter Glory. An all-white Glory can usually be seen only from close to and implies not only a range of sizes of particles but that these are very small. A contracting Glory implies growing droplets. The average spacing between droplets may also considerably effect the diffraction pattern. One characteristic that does seem to be consistent is that any colour tinting will be with a red tendency to the outside of the ring or rings.

So, fellow flying folks, if you see rings before your eyes next time you fly, it's nothing to do with the A.G.M. "do", but one of the many pleasures of the air world especially reserved for glider pilots.

— From "New Zealand Gliding Kiwi" Aug.-Sept. '80

*NOTE: Cloud-flying is restricted in Canada.

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A Poke at Private Owners and Others

The great god of private ownership is under attack. The April-May edition of "Sailplane and Gliding" has an article by Bill Scull, The British Gliding Association's Director of Operations, in which he expresses concern about the abilities and attitudes of the owners of private gliders. A summary follows:

In England the percentage of privately owned gliders in 1979 was 74% of the total as compared to 30% twenty years ago. Last year one in four club gliders sustained damage while only one in eleven privately owned gliders was damaged (assuming that all private accidents were reported). However, club gliders do many more launches in a year than they log hours, while privately owned gliders do many more hours than they do launches. Based on launches the club accident rate was .48 per 1,000 launches while the rate for private gliders was .74 per 1,000 launches — a very different story!

The reasons advanced for the higher private glider accident rate were:

- private owners get less practice in take-offs and landings.
- pilots become private owners with about fifty hours of experience while ten years ago it was typically one hundred hours.
- the relative decline in club fleets has increased the performance gap between club training aircraft and advanced privately owned gliders which causes greater transition problems.

Other concerns listed:

- the tendency for private owners to stand outside the club's scheme of things, resenting Instructor's comments, advice, training recommendations and, in extreme instances, disciplinary measures given as a result of observed poor flying.
- Instructors have gradually lessened control of solo pilots and as a result standards have declined.
- not enough Instructors do the same kind of flying as private owners and so cannot exert control with credibility.

Bill Scull's concluding statement is quoted in full: "The following statement is unequivocal in spelling out the responsibility of club committees and CFI's in particular:

General: To improve the standard and quality control of all flying from the club by all pilots.

Specific: To be genuinely responsible for all dual training, flying and passenger carrying, supervision of all Instructors and post solo training. Also for the standard of all private owners flying at all levels of advancement (this includes all phases of flight, local soaring standards in terms of safe and sound procedures, cross-country landings, investigation of accidents). Note: one of the trickiest of jobs is the supervision of private owners who may resent what they think of as interference. However the CFI has the duty and the power to control all flying standards of all private owners who should be left in no doubt as to this."

One man's view? Not quite, for the President of BGA says in his report, "I believe the accident record of private owners warrants special attention. There is a danger that the sanctions which are applied when the culprit is flying a club-owned glider may not be used when the glider is privately owned, although the responsibility remains that of the CFI." He concludes, "If we should ever come to regard self-discipline as an old-fashioned concept and self-interest takes its place there will be nothing the BGA can do to prevent the consequences, and they are likely to be dire."

So there it is; not only a blast against private owners but CFI's and Instructors get a slap in passing. But that is England and we are here. Perhaps it doesn't apply.

Even appreciating the feeling of some private owners that if they go off and kill themselves it is their own business the mercenary among us might have a concern about the resulting increase in insurance rates, and as no one gets into the air unassisted the rest of us might also have a right not to assist in the demise.

The privately owned gliders in Britain account for 74% of the total (about the same as at Hope) and Scull approvingly cites Fred Weinholtz of the German Gliding Commission who is said to have taken steps (unspecified) to limit the growth of private gliders in Germany where the proportion is only 30% — and in spite of that they are no slouches at gliding! In Scandinavia Goran Ax, at the time he won in the Internationals is claimed never to have owned a glider — try that in Canada. Recent advertisements inviting overseas glider pilots to fly in Australia listed a range of available club gliders which in performance and quantity would make your eyes pop. It seems that there must be another way to go.

But having another way to go doesn't mean you should go that way. It does make it sensible to have a look at it though.

Most private owners, it seems, are driven to purchase through sheer frustration rather than from choice. The limited per-

formance and quantity of club fleets makes it all but impossible to get an aircraft on a half decent day. The only way to fly is to get a share in anything with wings, however dismal its performance. Even that costs a great deal, leading many younger, less affluent pilots to drop out because they can't raise the fare.

There should certainly be no obstacles placed in the way of anyone who must own a personal glider, that is an individual right not to be tampered with. However that route of private ownership may not be the best way to get the maximum number of members in the air in good gliders at the lowest possible cost. Looking at the co-operative club route of expanding the fleet, assume (optimistically, perhaps) that each member could be persuaded to kick in one thousand dollars, even as a loan to be repaid on leaving the club, what could the club buy with, say, one hundred thousand dollars? Probably enough gliders to make private ownership less of a necessity and at the same time provide a range of gliders sufficient to stimulate a good deal of interest in advancing to higher levels of flying through a thorough and graduated training programme.

A thousand dollars is a lot of money, but what is the cost of private ownership? Few know because they don't dare work it out. One of the great myths of gliding is that the purchase of a glider is an investment, the argument being that the value of the glider will increase with time.

Without question a Libelle which sold for six thousand dollars ten years ago would fetch twelve thousand today — doubling of your money in ten years? No way! True, perhaps, if you count in dollars and ignore the decline in the dollar over ten years and the inflation of prices. What you would be doing in this case is getting rid of a whole glider and receiving in return enough money to buy half the replacement. Some investment! Even this ignores the fact that the money tied up for ten years might well have earned enough interest to equal the original cost of the glider. Not cheap is it? And what of the miscellaneous costs — insurance, repairs etc.?

The cost of a new, fully equipped glider is becoming so astronomical that the possibility of private ownership is, for many people, becoming even more remote. If private ownership is becoming impossible, is co-operative financing of an expanded club fleet the only way to go. And would the de-emphasis on private ownership correct the problems outlined by Bill Scull — if they do exist?

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