

free flight

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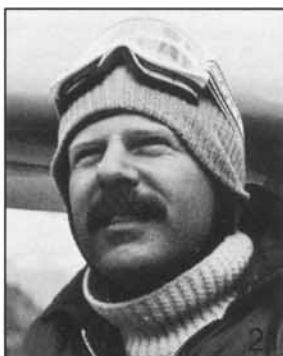
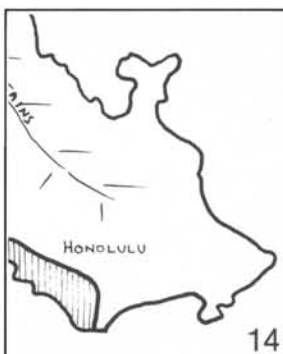
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Cover photo by Bert Small — 2-33 at C.O.S.A.

"Hey Bert! Do you feel like doing an intro flight?"

"Sure. Who is it? Let's go!"

I helped the passenger in to the 2-33, strapped him in and explained what was about to happen, so that he wouldn't have any surprises that might upset him.

We towed to two thousand feet, released and I started in on the speech about how quiet it is after release and what a great sport Soaring is and you should come back and take some instructional flights and there is Chemong Lake straight ahead and if you'll look from your right you will get a good view of Peterborough.

We circled around and travelled here and there as I kept up my "tour bus speech" and at one point, as we banked to the right, I said, "If you look right below us you can see the telephone relay tower." At that moment I glanced at the altimeter and nearly flipped! The altimeter read 1100', far too low to be that distance away from the gliderport. I immediately turned and headed for the 'green barn' which is our entry for the circuit, but I was fully prepared to do a straight in, down wind landing if necessary, if I could even make that!

As I sat in the back seat with straining eyes and racing brain trying to calculate the best speed to fly to get us back to the airport, my passenger, unaware that anything was wrong

The Intro Flight

by Bert Small

said, "How often do you fly here?" Realizing that I had to remain calm, as though nothing unusual was happening, I replied, "Oh, every weekend, holidays and we also have special flying weeks throughout the Summer months." As we boomed along trying desperately to get back I said, "I'm sorry this flight is so short, but there just weren't any thermals to climb in." As my eyes darted nervously between the gliderport, now at an unusually low angle, and the altimeter, my perfectly calm passenger said, "How do you know how far away from the airport you can go and still get back safely?"

As I was secretly taking deep breaths and flapping my elbows to keep us airborne, I replied that, "This comes with experience

and it is no trick to judge when you have had enough flights."

We were still a mile away from the entry to the circuit but fortunately the altimeter still read 900', which is the height I should be over the 'barn'. I kept pressing it for all it was worth, and then my passenger said, "What lake is that over there?" He was pointing in the complete opposite direction from our airport, so without looking I replied, "Oh, that's Bass Lake, and I understand there is excellent fishing there." I hadn't looked but I felt secure in the knowledge that there are approximately 23 "Bass Lakes" in Ontario.

Now we were over the 'barn' at 650' and fortunately we hit some zero sink on downwind, which allowed us to make an almost normal base leg and then a final to an uneventful touchdown, roll-out and a gentle stop.

"That was a wonderful experience," my passenger said.

"Well, I'm glad you enjoyed it, I certainly did, and I hope you will come back again sometime."

After towing back to the flight line, the duty pilot said, "Hey Bert! Do you feel like another 'Intro' flight?"

"Ah, not right now, I haven't had lunch yet, and I have to go over to the trailer for something, and the...ah well...I'll see you later...."

Letters

Dear Editor:

I read the article "No place for Philistines" March/April 1979 issue several times to understand the author's idea. Some truth is there, but I want to mention some other facts.

Interpretation

The author describes a wonderful flight and asks his passenger: "What do you think of gliding?" Answer: "It's very pleasant, but I don't really understand what gliding is all about."

I think this is a good answer to an unintelligent and emotionless question. Why doesn't he continue his beautiful flight and begin to communicate with his neophyte passenger? How can a newcomer express her feelings when she does not know the

language? The author's mind is too self-centered around his own achievements and lacks the empathy to understand his passenger's confusion.

The Faddist

The dilettante may waste our time, but not for long, as the solitude of a soaring flight is not part of his language. If the faddist has no time to find his inner nature and satisfaction, he is soon out of sight. Meanwhile, he helps us pay for our equipment.

Privacy vs. Commercials

Gliderports where attractive glass ships have their own show receive the most attention, while the mundane certainly enjoy privacy. If today our sailplanes serve as commercial backgrounds, tomorrow it will be something

else. Not to worry! At least the photography is usually remarkable. After all, the majority of people don't know what soaring is all about, so even a beer commercial will increase awareness of a fascinating sport.

Inevitably, the growth of our sport has erased the "exclusive club" aspect of soaring, and we cannot go back even if we dream of the old days as a better (?) time. We don't really need the elitist in soaring; his contribution to club activities and gliding as a whole can be less than the faddist's. Our proper task is not to shun the apparent philistine, but to teach him to find that flawless flight which speaks to the soul.

Sincerely yours,
Ursula Wiese

Member Clubs

Ontario Zone

Air Cadet League (Ont.), c/o Mr. G. Fraser, 1105 - 2175 Marine Dr., Oakville, Ont. L6L 5L5
Air Sailing Club, Box 2, Etobicoke, Ont. M9C 4V2
Base Borden Soaring Group, c/o Mr. Popodyne, CFB Borden, Ont. L0M 1C0
Bonchere Soaring Inc., Box 1081, Deep River, Ont. K0J 1P0
Central Ontario Soaring Association, Box 762, Peterborough, Ont. K9J 6Z8
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 Mr. G. Ehrmcke, 714 King Street, Midland, Ontario L4R 4K3
Kawartha Soaring Club Inc., P.O. Box 168, Ormestown, Ont. K0L 2W0
London Soaring Society, Box 773, Station B, London, Ont. N6A 4Y8
Rideau Gliding Club, c/o Mr. H. Janzen, 172 College St., Kingston, Ont. K7L 4L8
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, 62 Lancelfield Pl., Chatham, Ont. M4V 2N5
York Soaring Association, Box 660, Station Q, Toronto, Ont. M4V 2N5

Maritime Zone

Bluenose Soaring Club, c/o 622 - 200 Willett St., Halifax, N.S. B3M 3C5
New Brunswick Soaring Association, 521 Blythwood Ave., Riverview, N.B. E1B 2H3
Newfoundland Soaring Society, c/o Mr. J. Williams, 57 Boyle St., St. John's, Nfld. A1E 2H5
Quebec Zone
Appalachien Soaring Club, Box 271, Sherbrooke, P.Q. J1H 5J1
Ariadne Soaring Inc., 735 Riviere aux Pins, Boucherville, P.Q. J4B 3A8
Association de Vol a Voile Champlain, 192 Highfield, Mont St. Hilaire, P.Q. J3H 3W5
Buckingham Gliding Club, c/o No. 8 - 365 St. Joseph Blvd., Hull, P.Q. H8Y 3Z5
Club de Vol a Voile Asbestos, 379 Castonguay, Asbestos, P.Q. J1T 2X3
Mississquoi Soaring Association, Box 189, Mansonville, P.Q. J0E 1X0
Montreal Soaring Council, Box 1062, Montreal, P.Q. H4L 4W6
Quebec Soaring Club, Box 9276, Ste. Foy, P.Q. G1V 4B1
St Jean Glider Club Inc., 611 - 860 Blackthorne Ave., Ottawa, Ont. K1K 3Y7
Prairie Zone
Air Cadet League (Man.), Box 1011, GPO, Winnipeg, Man. R3C 2W2
Regina Gliding & Soaring Club, 19 Ritchie Cres., Regina, Sask. S4R 5A5

Saskatoon Soaring Club, Box 379, SPO 6, Saskatoon, Sask. S7N 0W0
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, MPO, Calgary, Alta. T2P 2M6
Edmonton Soaring Club, Box 472, Edmonton, Alta. T5J 2T6
Grande Prairie Soaring Club, Box 550, Grande Prairie, Alta. T8V 3A7
Namaso Soaring Club, c/o Capt. K. Peters, CFB Edmonton, Lancaster Park, Alta. T0A 2H0
Southern Alberta Gliding Assoc., c/o D. Clark, 514 Sunderland Ave. S.W., Calgary, Alta. T3C 2K4

Pacific Zone

Advanced Soaring Training & Research Association, c/o Mr. L.M. Bungey, General Delivery, Port Mellon, B.C. V0N 2S0
Alberni Valley Soaring Association, Box 201, Port Alberni, B.C. V9Y 7M7
Bulkley Valley Soaring Club, Box 474, Smithers, B.C. V0J 2N0
North Okanagan Soaring Club, c/o 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

New, Used or Build-It-Yourself: Some Further

by Lloyd Bungey

So you have made the decision that you need a sailplane for yourself. You have decided that you require a sailplane with certain characteristics and you have some idea of what you are prepared to pay. Now comes the hard part, finding what you want.

If your budget is low you will have little choice. It must be used or a build-it-yourself project. If you want a machine with modest performance it will likely be a used ship as very few machines being built today are other than high or medium performance. However if there are no financial or performance limitations then you can buy new, used or build-it-yourself, whichever is your fancy. I shall assume you fall into this category in order to discuss the possible problems you may have and to point out some of the advantages to each course of action.

Buying New

Most people like new goods, whether it is a new car or a new baked cake. It's no different with sailplanes. The latest models always have better performance than what's currently on the market. At least that's what the advertisement say! Don't get sucked in. That lovely new "vunderbird" may actually perform the way the designer thinks it will, but then again it may not. Also it may actually be in production on schedule but more likely it will be late. Consider the designer's past products before sticking your deposit down. If his record is good both in performance and meeting delivery dates then stick your money down if it's what you want, but if his record is poor or even unknown then you are definitely taking a risk.

Buying a proven product will get you guaranteed performance and probably a short delivery time but possibly by the time you get it it will be overshadowed by some newer design. It's a risk you take. However if it is already a popular buy, it will probably have good resale value when you decide to sell.

With all purchases of new equipment you will have to get your bird into the country and certified. This may pose problems. At the time of writing there are difficulties with the procedure for type approvals so before ordering your dream bird check with the S.A.C. Technical Committee to make sure it has been type approved or that it will have one by the time yours is ready to leave the factory.

This small point of type approvals is of major significance so don't treat it carelessly. Even small changes to the design since it was originally type approved can mean that a repeat of the testing is needed for your model. And what's more such changes are becoming more and more routine all the time. For example the first Astir was in the country only a year when the Astir CS 77 was introduced. The ships were almost identical but a fresh type approval was needed. Similarly, the ASW 19 was barely 2 years old when the ASW 19B appeared. Thus even if you think that what you are ordering is type approved check it out with the SAC Technical Commit-

tee and that manufacturer to make sure no changes have been made or are planned which would alter the situation. Then make sure when you receive the paperwork for the ship that it specifies what it should or you may be at the MoT without a hope.

If you have financial restraints which limit your purchase to a certain price range, don't forget to allow some money for taxes, instruments and a trailer. Also, remember that practically all gliders are sold on a contract that is no fixed price. The price you pay is often the F.O.B. factory price that exists at the time of delivery. You may budget a certain sum but wind up having to pay substantially more due to price escalation at the factory and currency fluctuations.

Buying Used

Buying a used sailplane has a lot of advantages. Firstly, you can take delivery of it almost immediately. Also, the price is not subject to escalation as can occur while you wait for a new ship. Additionally, most used ships come complete with instruments and trailer so there is not the additional cost for these nor the work of fitting out an instrument panel and matching the glider to a trailer.

Used sailplanes come in a wide variety of models, equipped with all sorts of instruments and in various states of disrepair. The lower the price, generally the worse the general condition is. However this is a generality. Sometimes sailplanes come on the market at low prices to ensure a quick sale or are sold by people who have lost contact with the sport and therefore don't know the real value of what they have. Snap up a bargain like this in a hurry.

Unless you really trust the vendor, don't buy a sailplane sight unseen. Go to wherever it is and check it over. Check the log books to see how many times it has been pranged (if any). If it has been pranged check who did the repair, and if possible, check the reputation of the repairman. Also, before going to look at the ship try to find out about any airworthiness directives which exist for the ship. Check that these have actually been carried out while you are inspecting it.

Of course a thorough inspection by an AME should be conducted before finally buying a ship, although if you are quite knowledgeable about sailplanes you could possibly omit this. If you do get an AME to inspect it make sure he is acting on your behalf, even if it requires flying one in from your local area. This could save you regret later on.

Almost as important as checking the condition of the ship is checking that there are no liens against it. Don't just take the sellers word for it, check. In each province of Canada, liens within that province are registered with the government of the province. In the U.S.A. liens on aircraft are registered with the F.A.A. By checking with the appropriate authorities you can determine whether or not there is clear title to the

aircraft. If you are taking out a loan to purchase the sailplane then the bank or finance company will do this for you (at your expense, of course).

If your used ship is already registered in Canada, then you can be reasonably sure that you will have no difficulties with certification (unless it is a homebuilt). Just make sure the C of A is current and that all required inspections and directives have been complied with.

If you are getting your used machine from the U.S.A. then there may be problems. Make sure that the machine has a type approval for Canada, and also, that it has a C of A in the U.S.A. Ships that have been registered in the experimental category in the States will not be certified in Canada. You will also have to be able to produce the original export C of A from the country of origin to get it registered in Canada so make sure this is available. Finally, after purchase, see that the sale is registered with the F.A.A. on the appropriate form and the registration number is cancelled and the MoT notified of this by the F.A.A. You cannot get Canadian registration numbers assigned unless the U.S. ones have already been cancelled.

Importing a used ship is relatively easy if the correct forms are filled out correctly and the appropriate taxes paid. You may either get a broker to do this for you or do it yourself. In the latter case try to get the assistance of someone who has done it himself recently as forms and procedures can change.

Building Your Own Aircraft

To start a homebuilt is easy. You just have to buy a kit and open the first crate. To actually complete one is another matter. Most keen homebuilders seem to take a couple of years to complete a project. I even know of an R.S. 15 that was completed in less than 6 months. On the other hand an awful lot get bogged down and take decades to be completed. So before you start determine what you really want.

If you want to build an aircraft, then go ahead. If you really want to fly, then look for a second job to earn the income to buy a plane. Homebuilding is really for those who want to build.

Even though at first it may seem that homebuilding will be a cheap way to get a sailplane it may not turn out to be so. Will you do the building at home or will you need to rent a workshop? If it is the latter then add the rent of the workshop to the cost of the project. Will you have to rent or buy special tools? If so, add their cost to the cost of the project. Also, will you need to take time off from your job to chase up bits and pieces? If so, add the cost of the lost wages to the cost of the project. Not so cheap now, eh??

Further expenses for the homebuilder are the costs of instruments and trailer. When you take all the additional expenses into account then a cheaper solution may be to buy a used sailplane.

Thoughts on Private Sailplanes

Still convinced that you want to build a sailplane? Well, the next step is to decide what kind. Try to talk to someone who has flown one. Especially an outsider. Designers and other builders are often biased and will therefore not give you a true story. Outsiders (non-builders) will be more honest in their appraisals. Once you have sorted out the facts then make your decision.

After you have decided what you want to build, get all the information you can on it and go down to your local MoT office and discuss the project with them. If you are building from a kit then be sure it will be approved before ordering. This is largely a local matter. Just because someone elsewhere in Canada has built one does not mean it will automatically be O.K. with the local region. I know of one case where a potential homebuilder is still trying to convince the Regional Office that the kit he wishes to build from will meet the 50% of construction rule in spite of the fact there are several others already built and flying in Canada. It's the local inspector you have to satisfy, not the one elsewhere.

Once you are sure that you can carry the project through to completion, satisfying the MoT requirements along the way, then get going. Sooner started, sooner finished. And good luck.

Registering and Getting Flight Permits etc.

With a ship already registered and certified for flight in Canada, transferral of registration is relatively easy. With an imported ship, it takes a little more time and paperwork. Homebuilts are also a little more complicated but not difficult.

If the ship has not been registered in Canada before, the first step is to get registration letters allotted. For a used ship from a foreign country this will not be done until the foreign registration has been cancelled, and MoT notified of this by the foreign office of registration.

Once in the country (for an import), MoT will require one set of the customs clearance before they will issue a certificate of registration. They will also require various documents including an export C of A from the country of manufacture. Used ships will require an inspection by a MoT inspector plus signing out by an AME before a flight permit will be issued. Once the flight permit is issued the ship can be flown for a test flight (or flights) if they so specify. If the test flight is satisfactory then all the documentation must be sent or taken in to MoT for the issuance of the C of A.

The above is a rough guide only and may sound horrifying but is actually quite easy. If all is in order then it may only take a few days to complete the procedure. The biggest delay will most likely be arranging for the MoT inspection. The MoT has a guide for purchasers of aircraft and this can be obtained from them free of charge. It gives the full details of how to get your aircraft registered and certified. It also contains a section about homebuilt aircraft.

Financing a Sailplane

No matter whether you buy new, used or build it yourself you will have to pay for it. Homebuilders generally pay as they go (or in some cases, go as they can afford) so spread their payments over a long period. New and used purchasers must come up with the money fairly quickly. The prosperous ones pay cash but the others borrow. Fortunately there are banks that view soaring as a low risk sport, although the manager may worry a little that one day you might just fly off to Mexico. If you shop around then you can find a loan. All you need is a good credit rating. So if you meet the requirements and have the desire, get busy and that dream can come true.



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The CANADAIR Trophy

is for the pilot making the FIVE best flights of the year.

The “200” Trophy

is for the pilot who, having logged less than 200 hours total gliding time at the beginning of the year, makes the FIVE best flights of the year.

Scoring:

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

Rules:

1. All flights to originate in Canada.
2. All goals and turn points must be declared before take-off.
3. Turn points for the prescribed-area-distance task must be declared before take-off but may be visited and revisited in any order subject to the requirement that consecutive turn points shall not be less than 50km apart.
4. Evidence of take off, landing, turn points and height gains shall comply with F.A.I. rules.
5. Only height gains require barograms.
6. Flights claims should be sent within a reasonable period to Jim Oke, c/o General Delivery, Southport, Man. R0G 1N0, so that they can be reported in Free Flight. Claims must be sent in during the year in which the flight was made.

FLIGHT REPORT FOR B.A.I.C., CANADAIR, AND "200" TROPHY CLAIMS

Pilot _____ Flight Date _____
 Sailplane: Type _____ Registration _____

Place Name of:-	Latitude	Longitude	Leg Distance
Starting			X X X
1st. Turn			km
2nd. Turn			km
3rd. Turn			km
4th. Turn			km
5th. Turn			km
6th. Turn			km
Landing			km

Altitude at low point after release _____ m Subsequent maximum altitude _____ m

1. Altitude Gain _____ m @ 1.00 pt/50m = _____ points
 2. Free Distance _____ km @ 1.00 pt/km = _____ points
 3. Prescribed Area Distance _____ km @ 1.00 pt/km = _____ points
 4. Distance to Goal _____ km @ 1.25 pt/km = _____ points
 5. Triangle (a) Completed _____ km @ 1.50 pt/km = _____ points
 (b) Incompleted _____ km @ 1.25 pt/km = _____ points
 6. Out & Return (a) Completed _____ km @ 1.00 pt/km = _____ points
 (b) Incompleted _____ km @ 1.50 pt/km = _____ points
 Distance from T.P. _____ km @ 1.25 pt/km = _____ points
 Distance to T.P. _____ km @ 1.00 pt/km = _____ points

Take-off Certificate O/O No. _____ Signature _____
 Task Declaration O/O No. _____ Signature _____
 Turn Point Photos. O/O No. _____ Signature _____

PILOT'S SIGNATURE _____ DATE _____

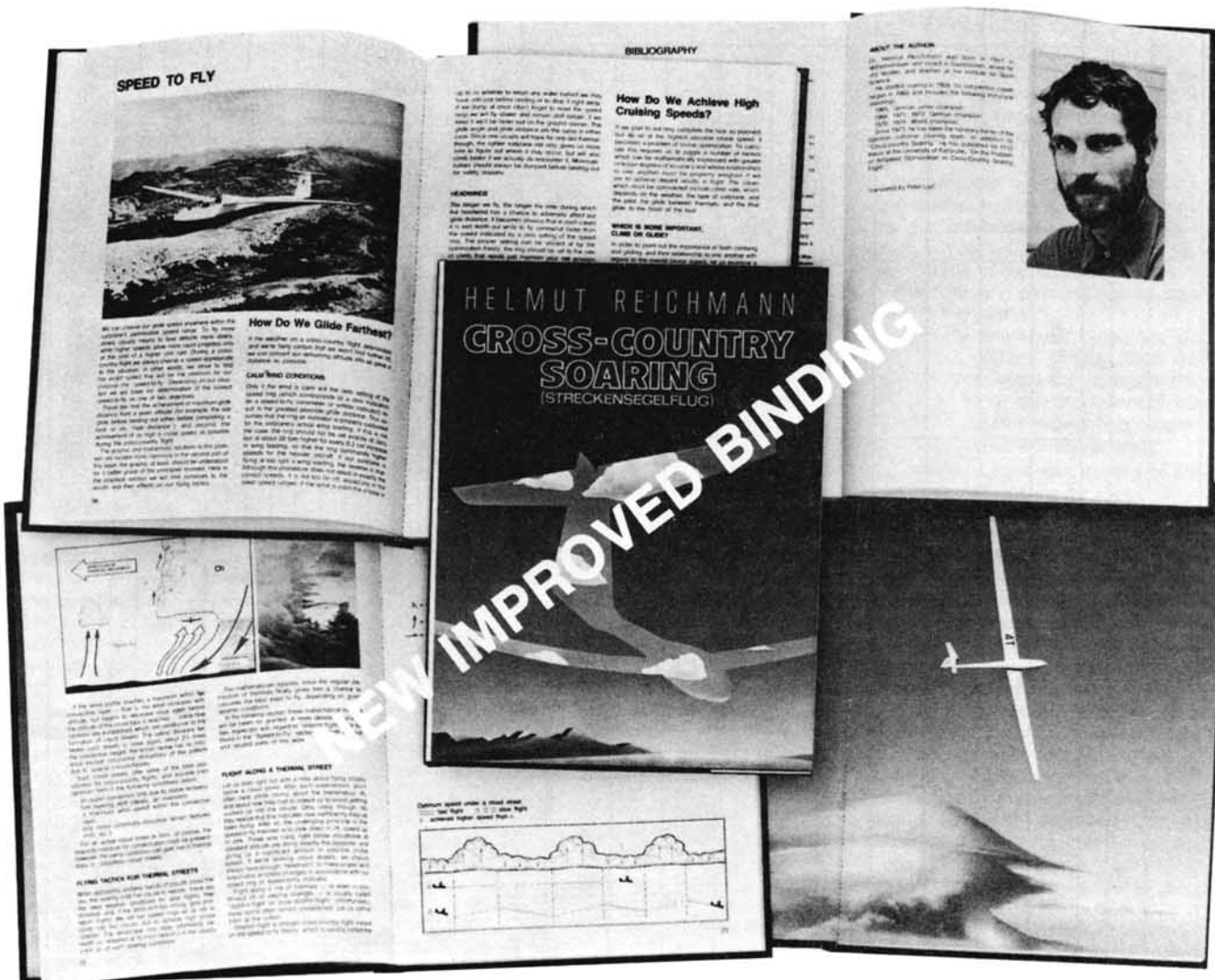
Flight Details

Points Claimed

Verification

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BUSINESS MEMBER

Hangar Flying

F.A.I. Awards News Flash!!

by Tony Burton

Candace Matte, a pilot from Vancouver, has become the second woman in Canada to earn the FAI Gold Badge. Flying an ASW-19 at a regional contest at Estrella Sailport, Arizona, she combined one of the daily tasks with an additional leg of her own, to earn the Gold distance, Diamond goal, Gold altitude and claim a feminine out and return distance record.

On June 1, the task was Estrella to Ryan Field and return, a distance of 280 km. Candace completed this task without landing back at Estrella, then proceeded out and back to a second declared turnpoint at Flying A Ranch. It was not your standard way of flying a 329 km triangle! On the same flight she achieved an altitude gain of 10,800 ft. Candace is claiming the record for the Estrella to Ryan Field portion of the flight, which at this writing still requires SAC homologation.

Candace is looking hard at the feminine records, some of which have been lying fallow far too long. The SAC records chairman should be hearing more from her in the future. Good luck to a keen lady!

1980 Canadian Calendar!

The SAC is setting the stage for Canadian Soaring calendars! A 1980 Calendar edition will have come out this November, and will cost \$2.50.

It'll be our first try, and with your support, Canadian soaring calendars will continue, and get "glossier" over the years.

So plan to buy our "own" calendar this year. It'll have seven colour photos and one colour centrespread - just what you need for home, office and Uncle Elmer's birthday.

Ordering and mailing will be via your club. So send an estimate of how many you'd like, after your next meeting, to:

SAC Publicity
Att'n Glenda Stark
221 Henderson Ave.
Ottawa, Ontario
K1N 7P7

Limited Editions.

F.A.I. News

Records certified between the 1st of January and the 31st of March 1979:

Single-place Gliders:

Feminine: Speed over a triangular course of 500 km: 133.14 km/h

Speed over a triangular course of 100 km: 139.45 km/h

Susan Martin, Australia. LS-3 Waikerie Aerodrome. 29.1.79.

Altitude: 12,637 meters

Sabrina Jackintell, U.S.A. Grob Astir CS; Black Forest Gliderport, Colorado. 14.2.79.

Multi-place Gliders:

Out and Return Distance to a Goal: 801.77 km.

S.H. Georgeson and Helen Georgeson, New Zealand, Janus; Hanmer-Clyde Bridge-Hanmer.

Glider Could Generate Power from Jet Stream

from "Canadian Renewable Energy News" June/July 79

Sydney, Australia - Two university engineers have been awarded a \$30,720 federal government grant to study a plan to generate electricity by tethering a large, unmanned glider in the jet stream.

Professors Bryan Roberts and Clive Fletcher of the University of Sydney's Department of Mechanical Engineering say turbine-mounted gliders at an altitude of 11,000 meters would be in a position to tap 3,000 times more energy than is available at ground level.

Dr. Fletcher says two years of study have shown such gliders can generate electricity at a cost of two cents a KW or less.

Roberts and Fletcher are working on a cost estimate and preparing wind tunnel tests to determine the maximum performance of the turbines and how they would interact with the glider, which had to produce enough lift to remain in the jet stream.

Aerodynamic, meteorological, and electrical engineers are involved in the research program.

Roberts says they are analysing meteorological data to determine the wind's availability in an Australian region at 30° latitude. Frequency of calm or relatively calm periods and when the turbines would need to be used as crude propellers to keep the aerogenerator airborne, are also being calculated.

"We expect to take 18 months to two years to gather enough information to lay down the fairly detailed specifications for a 1 MW prototype, subject to duning," says Fletcher.

The prototype glider would have a wingspan of 35 to 40 meters and produce enough power to supply 120 homes. It would weigh approximately 3,000 kilograms (6,600 lbs.) and have perhaps four turbines of about five meters in diameter. The eventual configuration will depend on the wind tunnel testing.

Hornets Take First Place in Germany and Switzerland

by M. Barritt

H.F. Source - Seattle Glider Council's "Towline" July 1979.

Helen Thomson reports that Hans Gloeckl won the Std. Class flying a carbon Hornet in the recently completed German Nationals. The ship is one of three built with a carbon spar and carbon wing skins. Wings weigh 115 lbs. each, empty weight is 461 and the gross weight is 992 (can carry 375 lbs of water). A.J. Smith will fly a carbon Hornet in the U.S. Std. Class contest to be held in Kansas in July.

The Swiss Nationals (Std. Class) was won by Hans Nietlispach in a fiberglass Hornet.

Glasflugel has added a new employee to their company - a designer who was responsible for the variable geometry on the SB-11.

More F.A.I. News

1. May 14, 1979
Multiplace Goal & Return Distance
422 km
Dave Marsden and E. Dumas in Gemini
2. May 24, 1979
Women's Multiplace Distance to a Goal
76 km
Antonia Williams and Elizabeth Bell in a Blanik.

SSA National Soaring Convention

The 1980 Soaring Society of America National Soaring Convention will be held February 27 - March 2 in Seattle, Washington.

Convention headquarters will be the Washington Plaza Hotel in downtown Seattle.

Seminars and exhibits will be in the Seattle Center, site of the 1962 Seattle World's Fair. On display will be 24 of the latest, high-performance sailplanes.

For further information please contact:

SSA National Soaring Convention
1300 84th Avenue South
Seattle, Washington 98178
Phone: 206-255-8020

Canadian Designed, First Sailplane is Added to Aeronautical Collection

Ottawa - Recent additions to the National Aeronautical Collection include the Collection's first sailplane, a Canadian designed harbinger, C-FZCS. Conceived in 1947 by W. Czerwinski and B.S. Shenstone to compete in the British Gliding Association Design Competition of that year, the design was awarded 5th place against a strong field of competitors. The museum's example was completed and flown in 1975. Its owners, A.N. (Chem) LeChaminant and R. Noonan, subsequently donated their aircraft to the National Museum of Science and Technology for inclusion in the National Aeronautical Collection, thereby ensuring that the field of motorless flight would be represented in the museum by an aircraft of Canadian design.

The graceful Harbinger is of simple construction and was designed to satisfy the requirements of a two-seat trainer as well as to offer reasonable performance for cross-country flying.

Tentative Record Claims at Press Time from F.A.I.

German Aero Club: Class D, Gliders, Sub-Class D-1, feminine, single-place. *Out and Return Distance to a Goal* 805 km Hanna Reitsch, Germany. At Port Mathilda, PA, USA 8.4.79.

National Aeronautic Association, USA: Class D Gliders, sub-class D-2, Multiplace. *Out and Return Distance to a Goal* 829 km Tom Knauff, Robert Tawse. Julian PA - Sweet Spring 7.4.79.

These claims were pending homologation by FAI at date of notification 18 April 1979.

Club News

Rideau Valley Soaring School

Rideau Valley Soaring School was host to a film crew from the French CBC television network - "Radio Canada" - early this summer! Ursula Wiese and myself were the subjects of on-location interviews and aerial footage filmed for the program "Femme d'Aujourd'hui" (Today's Woman).

Just as challenging for us as to become "stars of two elements of air" was the prospect of conversing in the French language. We had sleepless nights, scanning through French soaring articles in order to break into the world of this aviation tongue. Stomach butterflies and head scratching marked the onset of this event. And worse, the sunshine suddenly became bewitched, while nimbus dropped to earth, releasing howling "cats and dogs" day after day. We were running out of time, the threat: to choose between "doing in the blue of the sky", or a dull studio "shoot out".

We wanted to do our best for producer José Forest, cameraman Francois Rouleau, interviewer Rachel Verdon and the rest of the crew. We knew we were representing not only ourselves, but RVSS, SAC and...Soaring!

Ursula, with over 300 hours in sailplanes, spoke as an experienced pilot and instructor, and welcomed the interviewer to her first glider flight. "I wanted to show her the art you see from the air: the river with all the silver glitter, the muddy green of the giant leaves of water lilies, and the blue sky with its dark-based cu's reflected in the rippled water below. I wanted to show her the green carpet of the countryside, patterned by dirt roads merging into the horizon, the farmyards with their silos, Ottawa and its highrise buildings at the vanishing point, and after release - the great escape - just like the birds.

"I couldn't show a bit of it!

"Instead, she held a stop watch tightly in her hands and activated at intervals a camera which was mounted on the wing for specific aerial shots. She did not listen to my words meant to make her realize what a pretty picture she was part of."

Back on the ground, Ursula spoke very well on such questions as "When do you wear a parachute? Is gliding dangerous? Is it expensive?" But Ursula was disappointed that she was not asked about the joys of gliding, the sheer pleasure, which she had expressed so well to me: "Ce sont mes ailes".

Ursula did several flights for the film footage. Producer Forest was determined to have aerial shots from a camera strapped to the top of a wing. Larry allowed this only on the 2-33, and only after he test-flew it. Ursula did it. Her comment: "It felt like a brick. I only wanted to land."

Her other flights were in the two-place Lark. The resulting cuts between 2-33 and Lark shots are amusing to the connoisseur. Nevertheless, her Lark "numbers" were fine,



Ursula and interviewer in Lark, Larry giving briefing. Producer with hand on nose of sailplane and film photographer. Photo Glenda Stark.

and featured a sunset glide with the photographer: "The ground down there was dark and the turquoise and orange sky above with its fire ball was half covered by grey altostratus. I pulled into the sun, kicked that rudder...a shiver from tail to nose...and we rotated over the silver band of the Rideau River before recovering into the evening sky. It was exciting."

My own role in the show was as beginner and enthusiast. I was asked "What is gliding in your life? Why are there so few women in gliding? How does one handle fear?" I particularly enjoyed expressing my opinions on these questions, as I felt they were relevant to the listening public. And I was pleased to see, later, that the small amount of French-Canadian blood in my veins was showing: I punctuated each point with emphatic sign language!

The producer's idea of depicting a newly-licensed pilot was to show what one can achieve in only one season. Hence, at a prior meeting, he had requested triple-rotation spins in the 1-26. "No problem!" I had said. Yet those of you on the field, the Saturday before the filming, must have chuckled as I determinedly tackled solo spinning for the first time.

On the day of the filming I blew a few spin attempts trying to match position with the chase-plane. I entered with too much speed. The stable 1-26 did a beautiful nose-up and perfect incipient, coming out straight and level in spite of my left foot growing two inches, and a permanent groove being impressed into my right thigh by the stick. The photographer loved them because of our positioning, but they just weren't triples.

On my second try: success. Slower, slower I flew, leaning left so that the camera mounted behind my head could catch the splendour of the view to come. Like a friend obeying a wish, the 1-26 tipped beautifully over. I almost regretted pulling out after

3 turns! The thrill of trusting and loving my sailplane had defeated all previous fears, and the moment was more precious than film could ever capture.

Glowing, I completed my sunset ride with graceful stalls and turns alongside Larry and the chase plane. Finally I tipped my wings to them, and slipped through the evening sky for home. Being filmed for television was truly exciting. But nothing can compare to my new level of communication with the 1-26.

A sincere vote of thanks goes to Larry Rowan, who devoted his time (one whole day and one evening) to both oversee the safety of the proceedings and to fly the chase-plane with the photographer. Without his help, the show could not have been produced. His talent in flying close to the glider, but outside of dangerous proximity, gave Francois Rouleau some spectacular shots. In spite of the hours and work involved, Larry was as cheerful and charming as ever.

Other willing assistance came from Don Finn, who flew tow on the first day, and Jack McKeller, on the second. Thank you, both! Thanks too, to Bev Rowan, who rescued us from becoming little heaps of dehydrated dust.

The glider time, tow-time, and chase plane time were all sponsored by SAC. In return, Radio Canada will give SAC the film that "hit the cutting-room floor". Since many good shots were not used, this will become the first reel in an SAC film library.

Both RVSS and SAC received credit during the show. The program was broadcast from coast to coast, June 8, 1979 at 2:15 p.m.

In the opening scenes, a lone glider was pictured with tow-plane sounds in the background. This could be confusing to the viewer. Otherwise, however, the montage was beautiful, the photography was dramatic and the strains from the theme song of "Jonathan Livingstone Seagull" soared with us.

Glenda J. Stark

Edmonton Soaring Club

The skies of central Alberta have been very much alive with gliders during the month of May. It is not that the weather has been consistently outstanding; nor has there been a dramatic increase in The Edmonton Soaring Club's fleet; rather there has been an unprecedented interest shown by ESC members to see Alberta from the air. It is difficult to pinpoint the reasons for this interest; establishment of an active awards committee who have instituted a club ladder competition (modelled on the BGA scheme) and a core of very keen XC pilots are certainly contributory factors.

The XC season started with a task week organized at Chipman (E.S.C.'s field 20 miles E. of Edmonton) for the week of 14 May - 18 May. This was arranged to culminate in the traditional Alberta Soaring Council's May Meet at Innisfail on the following weekend. A number of visitors from Vancouver, Calgary and Cold Lake gliding clubs joined us for this event and although only one day was good XC weather, it was so incredibly good that most of us never missed the other days. My only regret is that we all undertasked the day; nevertheless here is what was achieved on May 14:

1. 6 Completed O & R 308 k

(Chipman - Kitscoty)
Mike Apps, HP14
Wayne Huk, BG12
Ed Norgard, Libelle 201
Chick Wilson, Astir (Vancouver)
Kevin Churchill, Pik20 (Calgary)
Jack Parkinson, DaA (Calgary)

2. A 2 Seater O & R Record: 421k

(Chipman - Marsden*)
Dave Marsden and Ed Dumas, Gemini
*Yes you read it correctly. Marsden went to Marsden and back!!

3. A Silver C Distance: 100 k

(Chipman - Manville)
Jack Towers, Club 1-23

4. 2 Incomplete O & R 308 k

(Chipman - Kitscoty)
Toni Williams, Cirrus (Vancouver)
(8km short)
Tom Deinig, 1-26 (Cold Lake)
and last, but certainly not least:

5. 1 Complete 320 k distance

(Chipman - N. Battleford)
Dave Baker, (Vancouver)

The last flight listed was Dave Baker's second XC in a glider. His first attempt was the day before - 8k downwind from Chipman in a farmer's field! Oh yes, I forgot to mention that both flights were in a 1935-ish design, open cockpit Grunau Baby which has a (theoretical) best L/D of 18:1 and a VNE of about 55 knots!! And in case you start thinking it was a "mere" downwind dash, check the number of successful O & R's in the same direction!!

I'm sure all will agree that May 14 was a pretty impressive day. (Realizing that I'm new to Alberta, local pundits tell me not to expect more than six or seven days like this a year!) However it must be pointed out that over the period 12 May to 12 June, a total of 6848 k have been flown in Alberta by 17 Edmonton club members in 33 flights. This is an average of 208 k / XC flight! I don't know whether other clubs can claim such exciting activity but it is certainly the most flying I've ever seen or done. The achievements are shown in the table below.

ESC XC Flights May 12 - June 12, 1979

In addition to these flights by club members, visitors to Chipman have flown a total of approximately 2500 k in the same period (13 flights, 6 pilots) giving a grand total of nearly 10,000 kilometers in one month! If a plug for holding the 1981 Nationals in Alberta were needed, what more could be said?

Pilot	A/C	Total Distance	Number of flights	Comments
Gary Burt	HP11	158K	1	1st x C
Jack Towers	1-23	100K	1	1st x C
Chester Zavarych	1-23	420K	2	(1 x 300K) } 710K in club's 1-23
Clark Campbell	1-23	190K	2	
Adams & McPhee	Blanik	180K	1	
Zavarych & McPhee	Blanik	112K	1	
Ed Norgard	Libelle 201	1088K	5	(2 x 300K)
Jim Strong	Std. Jantar	318K	1	(1 x 300K)
Tenrag	Std Jantar	100K	1	
Jones & Marsden	Gemini	717K	4	
Dumas & Marsden	Gemini	421K	1	(2 seat record)
Mike Apps	HP14	1692K	7	(3 x 300K)
Dan Pandur	1-35	492K	2	(1 x 300K)
John Bachynski	1-35	424K	2	
Wayne Huk	BG12	436K	2	(1 x 300K)

The morning foretold another scorching day.

It is the first day of the New South Wales Sports Class and Two-seater Gliding Championships at Leeton in the wheat-growing plains of south-eastern Australia, and I am to fly my club's new Pilatus B4 15-metre sailplane. I am nervous at the prospect of my first competition: my stomach won't settle down, and the heat is no help.

It will have to be endured, and the met. briefing is that thermals will not start until the ground temperature gets to 40 degrees C. A blanket of high cirrus cloud is moving in from the west; maybe the ground won't get hot enough to produce strong lift. The task-setters consider the pros and cons and announce a 151 kilometre triangle for single-seaters with the distinctive wheat silos at Mirrool and Garoolgan as the turning points.

A couple of hours are spent checking the glider and its equipment, stowing water bottles so necessary in case of an outlanding in some remote area. I decide to remove the seat cushion to give my head a little more clearance from the canopy. I find I can nestle into the cockpit very comfortably in the 'Slim-pak' parachute.

At last the thermals begin, weakly, but enough for the ground marshal to call in the tugs. Soon, sweating in the oven-like cockpit and spitting out the gritty red dust blown in by the tug's prop-wash, I am whisked aloft but towards the irrigated farmlands.

Damn! Why does he take me so far downwind over these soggy ricefields? There's no lift around here. I release at 2000 feet and head back for the field but the only lift I can find is within a kilometre of the starting gate where thermalling is prohibited. I land, cursing and calling for a relight.

'Calm down, take it easy,' says my wife as she helps me retighten the chute and straps me firmly back in the cockpit. This time the traffic is easier and I am dropped close to a thermal to which it seems every glider in the southern hemisphere is heading. It fizzles out at about 4000 feet and the occupancy rate at the top is very high. I am not happy hanging around in that gaggle even though it would seem to be better to delay starting until conditions strengthen.

I ease carefully out of the crowded thermal and turn for the gate, which is marked by one of the runways. I cross at slightly under 3000 feet, get the radio call, 'Good start Whiskey Quebec Mike', and in the absence of any signs of lift, proceed at a cautious and height-conserving 45 knots on course for Mirrool.

This progress continues in a stately, but downward direction, until with less than 1800 feet, I must decide whether to blunder on hopefully or to scrape back to the airstrip. I creep over the some rising ground and the varicos tell me we are in zero sink. I make some exploratory turns and gradually work my way into a weak thermal that straggles to 3500 feet.

Gradually things improve and I find strong lift that carries me to 9500 feet. At this height the view is magnificent. I can see the roads leading to Mirrool and the railway line that runs to the second turn point, Garoolgan! I marvel at the yellow of ripe wheat, the bleached stubble and the dark, purple look of the wooded areas.

Exhilarated, I could float here all day; but I

'What! You Threw Away The Ripcord?'

Dept. of Transport, Australia No. 101 1978 Aviation Safety Digest
by David Townsend

remind myself that the race is to the swiftest. I push the stick forward and the B4's nose goes down until the ASI reads 90 knots. I am impressed by the way we travel over the ground, even though I seem to be looking down at it between my feet. I pull the stick back to slow down while passing through rising air, but only bother to circle when the lift is strong. The only other gliders I see are a Blanik and a Ka6.

This is what glider pilots dream about! I laugh and sing with the joy of it. Other pilots are feeling the same by the excited radio chatter and I reflect that the two-seaters are particularly garrulous.

It seems incredible, but I am almost over Mirrool silo still with more than 9000 feet on the clock! I fumble for the Instamatic camera and prepare to make a steep turn.

Over we go - keep the wingtip in the viewfinder - where's that silo? Over further; with this and the unaccustomed left hand on the stick a horrendous sideslip develops. I think I get the silo in the picture but I am practically right over it. Better go back and have another go.

I turn slowly and cautiously away from the silo looking carefully for other gliders. But reckoning on being further out than they

would be I turn again to photograph the silo looking back along the direction in which I had come. Can't see anyone. I take two shots and hope they will do - I want to get away from here.

I check my height - still over 9000 feet. Speed? Say 50 knots till I sort out the heading to Garoolgan. There we are 271° magnetic. Now where's that map?

Reaching for it under my right elbow I take a look outside - heading straight for me is the slim outline of the vee-tailed Salto! It is slightly higher than I am, but obviously close. Instinctively I push the stick forward to go under it. At the same time as my left hand gets to the airbrake lever, the white form blurs overhead.

There is a bump - hollow and metallic. 'It's OK' my brain reports instantly, 'only a glancing blow on top of the tail'.

Perhaps a second of deathly quiet passes - then the B4 flips end over end and I am upside down in a violent, whirling spin. My arms are flung against the sides of the cockpit; I can't get my breath. I struggle to get my hands on the stick; it's jammed hard forward. The earth whirls crazily below.

I know I must jump. Mechanically, my left hand finds the canopy release. The canopy

lifts and disappears in an instant with a sound like a rifle shot. Turbulent air blasts noisily at me. It is pleasantly cooler.

Somewhere inside me, as I fumble with the harness release, a calm, textbook sort of voice intones, 'It is advisable to abandon the glider with your hand on the ripcord'. Still whirling, I manage to get my right hand on it, low on my left side. My left hand pulls the harness release. Horror upon horror; I fall straight out of the cockpit!

Face downward I plummet towards the brown earth. I sense that the B4 has righted itself and is above and behind me, well clear. Frantically, I pull the ripcord. It offers no resistance; I continue to hurtle downwards, staring at the ground, breathless with shock.

This ghastly hiatus ends with a violent jerk, I am vertical, dazed, hanging in those wonderful straps. Above me is a smooth white, yellow and black canopy. There is no sound, I am alive and likely to remain so. Suddenly, life is precious.

I hazard a downward glance and my stupor is shattered by the appearance of the Salto hurtling in my field of view, perhaps 1000 feet below, in a spiral dive with the outer section of one wing crumpled.

I know that John Church is in the cockpit. 'John, get out. Let me see you', I scream to the empty air. A second later I see the canopy lift away. John's form steps out as a man might jump into a swimming pool. He pulls the ripcord, the 'Slimpak' opens and his canopy blossoms. I relax.

Then my abandoned glider appears below. It is the right way up in a flat spin. A whirling white object near it puzzles me for a moment. Then I understand. The object is the complete tail section - fin and rudder, horizontal stabiliser and elevator. The whole thing must have been sheared off in the collision.

Now I can see both the B4 and the Salto spinning earthwards, together. John seems to be descending faster than me. I notice that one of my shoes is missing and the other is hanging precariously from my toes. Gingerly, and sickened by the distance between the shoe and the ground, I lean forward in the straps, get it back on my foot and retie the lace.

John is now much lower than me. He is heavier than I am. Maybe I am not descending at all. I look up. A large dark cloud looms around the bright canopy. Maybe I am in some gigantic thermal and I am going to be sucked up into that black cloud.

Frightened again, I tug at the lines, trying to collapse part of the chute. It doesn't seem to make any difference. The thick cords hurt my fingers and I give up. The ground looks just as far away. The few farmhouses are still mere dots.

The fear vanishes and I am filled with a marvellous well-being. I have never felt so peaceful, so happy. The view is magnificent. Time seems to stand still while I am suspended in the huge bowl of sky. It is utterly, utterly quiet.

I watch the Salto, then the B4 thud into a ploughed paddock, not far from each other. They send up brief spurts of reddish dust, then are still. Suddenly I am flooded with wild dismay as I realise two fine aircraft are now wrecks and that one of them was, until a few minutes ago, the newest and proudest

possession of my club.

John is near the ground. I watch as he hits. His body seems to crumple; the canopy collapses beside him. Within seconds I see him rolling it into a bundle. Holding it in his arms, he strides vigorously towards a nearby farmhouse. I wonder how I will fare.

I study the ground. At least I can see that it is closer. I am descending, drifting in the light wind away from the paddock where the gliders lie, away from open paddocks and over low, wooded hills. I pull mightily at the right line and drift slowly back towards open ground.

I sink into a bank of hot dry air. It won't be long now. I am surprised to realise that I am cheerfully resigned to at least a broken leg.

I am going to land in a large fallow paddock. There are three or four trees in it and I am over the largest, an old spreading eucalyptus. I pull frantically at the lines, first one side then the other. Nothing seems to happen.

The earth is rushing up at me. I can smell the dry ground. The breeze slides me well clear of the tree. The calm textbook voice is back: 'Remain with your back to the wind, feet together, knees slightly bent and roll as you hit'.

The impact is astonishingly hard. I lie on one side, winded, unable to breath. Gradually air returns to my lungs; I test arms and legs. I sit up and pain shoots along my spine, my chest feels as if it is bound with steel straps.

I roll the chute as best I can and stumble towards the distant farmhouse. Progress is slow and not without discomfort. Every few paces I have to stop and pick thistles from my right foot, protected only by a thin sock.

I become conscious of a car speeding towards me. It slides to a halt in a cloud of dust and the farm owner, his son and John Church step out.

Suddenly John and I are shaking hands and desperately glad to be doing so. While we wait for our wives and crew to drive from Leeton, John and I talk in the friendly farmhouse kitchen. To my surprise I learn that John was formerly a parachute instructor in the Australian Army. A veteran of about 500 drops, this is his first 'emergency'.

Later, back at the airstrip, I am able to laugh, if wryly, at the number of old hands who, after expressing their pleasure at seeing John and me alive and well, ask to see the ripcord.

'I dropped it, I guess,' I say to one, recalling my terror the moment before the canopy filled.

'What, you mean you threw away the ripcord?' he says, shocked. 'You're supposed to keep it for repacking. They cost money you know.'

In Retrospect:

For glider pilots I would sum up advice about parachutes this way:

Wear one

Know how to use it.

I think the only time they are not necessary is in two-seaters on local soaring and training flights. They should always be used in single-seaters. Indeed most cockpits are built so that a parachute forms a handy part of the seating. Except perhaps for some older gliders with upright seating, it seems to me that the 'Slimpak' type is the most adaptable.

Pilots converting to their first single-seater are most likely to be about to don a parachute for the first time. They should be thoroughly briefed by an instructor and separately from the briefing on the aircraft. Someone conversant with the particular chute should check that it is donned properly. (Yes, glider pilots have been seen climbing into their aircraft, wearing their chutes upside down!)

The harness should be drawn up tight while standing. You should end up slightly crouched and find walking a little awkward. Spend some time in the cockpit ensuring comfort. Get out again if necessary, until the harness is adjusted correctly. A too tight strap loosened in flight could be as disastrous as not wearing a chute at all.

Films are available on the use of parachutes, so why not arrange a showing at your club? There are many experienced parachutists among the skydivers, who would be happy to speak on the subject and demonstrate proper care and handling.

Ensure that everyone who wears a parachute knows how to inspect it. Check the packing slip and make sure it is repacked by the due date.

Carefully open the flap covering the pins. They must be pushed fully into the studs, and the piece of red thread and lead seal tied around one pin and stud must be intact. The ripcord should be tucked fully into its pocket.

Keep the chute clean and dry. Never put it on the ground. Keep it in a zippered carrying bag. This way you can use it as a temporary wing-tip weight.

Thinking back, I don't believe the remote voice inside me offered the best advice. I discussed the jump with fellow club member Jack Stevens, an experienced pilot and a renowned authority of parachutes. (Incidentally, Jack packed the chute I used and for this alone, I hold him forever blessed.)

Jack believes the pilot's hand should not be on the ripcord before bailing out. This is because of the risk of pulling it instead of the seat harness release or of deploying the chute when not clear of the aircraft.

Both John and I suffered cuts and bruises to the shins caused by dragging against the instrument panels. If possible, departing pilots should draw their knees towards their chests before releasing the seat harness. This may be difficult in some gliders. At least make sure there are no dangerous projections such as oxygen plumbing under the panel or attached to the cockpit sides.

Jack says you should try to land facing the wind rather than turning one's back on it - in strong conditions the canopy could drag you along the ground. When face down it may not be possible to collapse the canopy and the slowest ground speed gives the softest landing (the same as a glider)

The pain in my spine disappeared in a day or two. Soreness in my chest and upper back persisted for five or six weeks. This was due not to the hard landing, as I had thought, but to the shock from my canopy opening when I was face down. Bruising on my shoulders and inner thighs testified to that.

Just one final piece of advice: if you do have to bail out, do *not* hang on to the ripcord after you've pulled it. It could tangle with the canopy and cause a malfunction - so get rid of it!

WAVES

by J.A. Koehler — Saskatoon Soaring Club

I have been flying gliders, off and on, for approximately 15 years. In that time, I have flown on a slope once and that was when I was a student. The winter of 1978-79 has been a revelation.

Wave 1

I went to Australia early in December, 1978 on business. I arranged to meet my wife in Honolulu for a one week holiday on the way back.

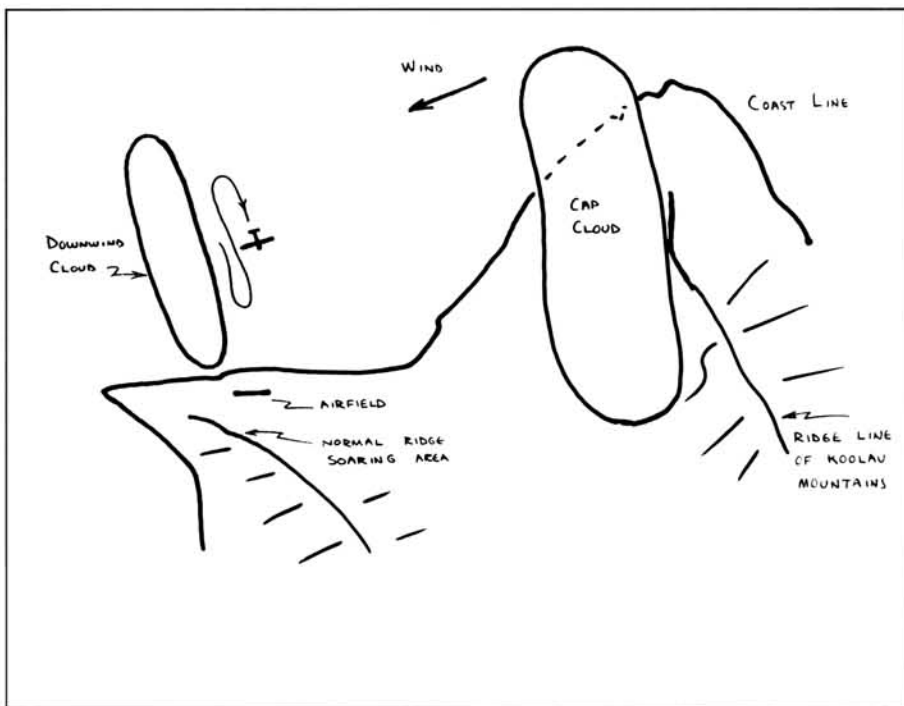
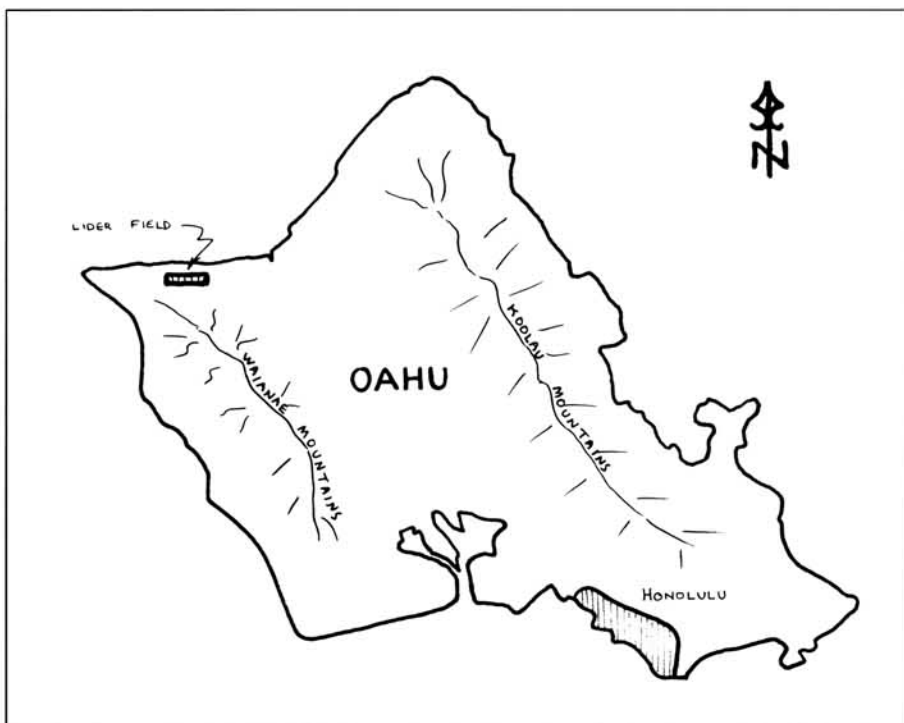
We were staying in a hotel at Waikiki and we saw a number of advertisements in the various tourist newsletters etc., concerning "glider rides". The advertisements showed a drawing of a 2-32 and were obviously meant for non-glider type tourists. I phoned the telephone number given and learned that they just gave short rides during the week and that there was no possibility of getting an immediate check ride since they normally did not have an instructor on the field. However, they said that I could get checked out on the weekend if I wished. I made a booking for the next Sunday afternoon.

We arrived at the field on the north side of the island shortly after noon on Sunday. The location is shown on the map in Figure 1. There was a very strong wind (approximately 25 to 35 mph) blowing from the east north-east. This was nearly parallel to the runways. The field was an abandoned U.S. Airforce base and had two parallel runways which were at least 10,000 feet long. They seemed to be in good repair.

The day was relatively cool (for Hawaii) and there was a lot of low ragged cloud which was moving very rapidly. There were occasional very light showers.

We watched their normal "glider ride" operation for a while and learned that the weather was not normal. Apparently, the wind direction was usually more northerly and closer to being perpendicular to the ridge. I was also told that it was usually warmer, sunnier, etc. etc. As everyone knows the weather is never normal wherever you go so I took it with a grain of salt.

Quite apart from the commercial glider ride business which used a tow-plane and a 2-32, there were also a few members of a club based in Honolulu who were auto towing a 2-33. After release, they (both groups) would head over to the ridge which was about half a mile to the south of the runways. The "glider-ride" people were also using a rather old looking 2-33 instruction and I was told that it was what I would be checked out in. There was a long hedge-row to the north of the runway which provided some shelter from the wind on the ground but which obviously caus-



ed a lot of turbulence during take-off. The down-wind legs were flown very close in and there was no real base leg - just a continuous turn from down-wind to final. The approach was very steep.

Sharing the field were a number of home-built aircraft and I saw a Vari-eze for the first time. The landscape was lush and green and the wait there was quite pleasant. We yarned with the operation telling the usual lies about our soaring conditions at home.

The 2-33 finally became available for my check ride rather late in the afternoon. It was obvious that I was not going to get to fly the 1-34 because of the time. However, I decided to go for a flight anyway and introduced myself to the instructor - a rather pleasant looking fellow named Chip. I had had one previous ride in a 2-33 about ten years ago but never had really flown one. I found it quite pleasant to fly if a bit heavy on the controls.

The tow was to 2000' behind a Citabria and because of the strong wind, we were barely past the end of the runway when we got to that height. After release, we turned more or less down-wind and flew over to the ridge. We then turned more or less upwind and flew along the side of the ridge. The club 2-33 was about 500' higher along with the 1-34. The 2-32 giving rides was quite a bit lower. Chip said the ridge was not working real well because the weather was not normal (again) and because the wind was too close to being parallel to the ridge.

This was my first real experience in ridge soaring and I was disappointed. We were quite high above the ridge and there was not the thrill of flying with one wing-tip stuck in close to the hill that I had expected. However, it was new, the scenery was superb and I was, at least, not scared. We flew about five miles along the ridge more or less upwind, gaining 800' in the process, turned around and went back like a shot more or less downwind.

We repeated these legs several times and I was surprised to find that each leg differed quite a bit from the previous time - the lift was not as repeatable as I had somehow expected it to be. At one point, we flew out over the ridge line itself and looked over into the next valley. It was truly spectacular since we were looking into a setting sun to the west, the shadows were long and the sea beyond was golden colored.

By this time, it was starting to get late. The low scudding clouds sometimes rained on us briefly and out to sea, to the north, it was very hazy due to all the blown spray. There was no perceptible swell or surf - it just looked choppy and wind-swept.

After an hour or so, I had had enough and we headed back to the upwind side of the field, leaving the slope at about 2300'. Chip suggested that I might like to spin down but I wanted to have a better look at the field before landing and so continued across the field and out to sea. There were lots of whitecaps and the ocean looked hazy and dull. About a mile offshore, we flew into a patch of life and I immediately turned upwind. I tacked back and forth and the lift gradually built up to about 500'/minute. Upwind, about 15 miles the Koolau mountains were hidden by a complete cloud cap. Between them and us were the scattered ragged clouds I had

been seeing all day. The lift was quite smooth and we gained several thousand feet. The band of lift appeared to extend about two miles cross-wind and to be fairly wide in the direction of the wind. Just downwind of the region in which we were crabbing back and forth, the clouds started to get more continuous.

As we flew back and forth, this cloud bank downwind got more and more continuous and thicker. There was a perceptible slope to the upwind edge of it. We got higher and higher and eventually we were flying over the upwind edge as if it were, itself, a giant white ridge. This bank of cloud extended right over the airfield blocking it from sight. Chip was getting pretty excited by this time as he had, despite several hundred hours of instructing, never been higher than 6000' in a glider.

We finally got to 7300' before the lift turned into zero sink. The situation was more or less as shown in Figure 2. We tacked back and forth in zero sink over the edge of this large bank of cloud. The sun was setting low in the west and, since we were well over the clouds, the view over the Pacific was spectacular. The whole horizon was gold in colour and all the scattered clouds were lower than we were. The sun reflected off the water and the operative word to describe the flight at this time would be - serene. Naturally, I had left my camera on the ground.

It was starting to get noticeably dark on the ground and I eventually opened the dive brakes, headed upwind and started back to the field. There was some turbulence below about 800' but the air was otherwise smooth. I landed without incident.

There was some commotion on the ground because we had apparently disappeared from view while heading out to sea. I had my log book endorsed to fly solo at the site.

The lift was obviously due to secondary wave from the mountain range upwind about 15 miles. Apparently one other glider pilot had once got to about 8000' (to the best of local knowledge) but the episode I had experienced was apparently rare.

My personal opinion is that the wave may be there frequently and no one would know it because the locals never venture off the ridge. Of course, it may not be there either.

One interesting aspect of the flight occurred to me later. With a 40 mph tailwind, I would expect to be able to fly about 90 miles from 7300' in my Phoebe C. The next island to the west (downwind) is Kauai and it is only 70 miles away.

Wave II

Fairly early in the fall, before my trip to Australia, several members of the Saskatoon Soaring Club and myself decided to go to try the wave at Black Forest, Colorado. The university has a mid-term break in mid-February and we wrote to Wave Flights, Inc. to book aircraft for that period. The week we had reserved as a week before a regularly scheduled wave camp. We had been told to avoid wave camps because they are too crowded. I booked a 1-35 since I thought I would like to try a flapped glider, never having flown one before.

There were four of us altogether; Jan Smith who is a biologist, Joe Chudobiak and Keith Williams who are engineers and myself, a physicist. We planned to rent a Cessna 172

and fly down the day before our first reserved day; Friday, 9 February, 1979. The general idea was to get checked out over the weekend when, presumably, the place would be crowded with locals, etc., then do our serious flying in the following week when we would not be too pushed.

By Wednesday, 7 February, it was clear that the weather was going to preclude flying down since the forecast was for zero visibility and blowing snow. We decided to rent a car and finally left Saskatoon at 11:45 p.m. on Thursday with the local temperature at -35°C.

We drove down through Saskatchewan in the dead of night and into Montana and North Dakota. The driving was difficult due to the blowing snow and we were relieved when it became day again. We ate sandwiches and drank coffee through the night. About noon, we stopped for lunch at some Mexican fast food place in South Dakota. Shortly after this, Keith announced his stomach was upset - his first experience with Mexican food.

As we drove down through South Dakota and Wyoming, the snow cover on the countryside got sparser and sparser. Joe, who farms near Calgary (besides being a university prof.) considerably enlivened the otherwise dull trip by his comments about the agricultural potential of the land. His most frequent expression contained the words, "God forsaken". It really is very poor looking country.

About dusk, we drove into Colorado and could see, illuminated by the setting sun in the west, what could only be lenticular clouds. Their beauty was lost on Keith who was on about his third package of Tums. We finally got to Denver about 9:00 p.m. and collapsed into a motel.

We left Denver early the next morning in brilliant sunshine. There were lenticular clouds over the mountains to the west and, as we drove into the outskirts of Colorado Springs, we saw gliders flying overhead from the general direction of Black Forest.

We arrived at the Wave Flights gliderport about 9:30 a.m. There was a lot of activity going on - gliders being towed, gliders landing etc. We walked into the office and were immediately taken into a small room for briefing. After being shown the boundaries of the high altitude area and learning the local rules we were introduced to oxygen systems and how to use them. The most important thing, we were told, was to switch to pure oxygen and descend immediately if we started to feel funny. The staff were very pleasant, if a bit harried and my first impressions were very good. I just had time to run out to the car, get out a pair of fleece-lined mocassins and I was taken for a wave check flight in a 2-32.

It was a gorgeous day - a very light surface wind and brilliant sunshine. There were lenticular clouds running across the sky to the west of the field. The wave was obviously working and the instructor with me, a fellow named George Painter, said that this was the first day of wave in over a month. The rotor turbulence was no worse than we get in Saskatoon on a rather moderate summer day. We released from tow and entered the wave at about 14,000 feet just south-east of Pike's Peak. The lift was about 300'/min and fairly smooth (but, *not* as smooth as all the books say). The wind was quite light and at times, we actually circled - a manoeuvre that I

thought was strongly discouraged.

My impressions at this point were favourable. It was a brilliant day, the visibility was superb, there were lots of gliders around and lots of activity on the radio. After having all the landmarks pointed out to me and exploring the area for a while, we left the wave at 18,500 feet (still going up) and headed back. The whole thing seemed like a lot of fun and, best of all, very easy.

On the way back, George demonstrated the barograph notching procedure. This consists of pushing the nose right over to the vertical while, at the same time, easing the dive-brakes all the way out. After an interminable time, the nose is pulled back till the glider is going nearly straight up and the dive-brakes are brought in. The glider is then pushed over to normal flying altitude as the speed reduces. The reason for this rather vigorous procedure is to produce a well defined notch and still not move appreciably forward which might get you out of the wave. My strongest personal recollection during the demonstration was the fascination of seeing George's glove which jumped up onto the canopy as we were going over the top and then slid slowly down in front of me as we went into the dive. I did not let on that I found anything unusual in this manoeuvre despite the fact that I normally do not like to see the horizon anywhere except straight in front of me. Being speechless helped a lot too. I landed back at Black Forest with no difficulty and was given the booklet on the 1-35 to study preparatory to getting a briefing on it.

The gliderport was an extremely busy place by this time, due to all the weekend pilots and the fact that this was the first day in some time that the wave had been working. The wave switch, contributed by the York Soaring Association was turned on and there was an almost hysterical coming and going of glider and tow pilots.

After some time, it became apparent that I was not going to receive my briefing on the 1-35 since the fellow who was to do it was continuously busy towing. I saw a 1-34 being tied down outside the office and so asked if it was available. It turned out that it was and, since I had been checked out in them several years before, I was able to get it.

I quickly grabbed an oxygen mask and a barograph and got into the line up for a tow. It was getting on to late afternoon by the time I got towed away. The rotor turbulence was mild again and I released, in the wave, at about 14,600 feet in much the same location on my previous flight in the morning. I notched the barograph without scaring myself unduly and started to climb at about 300'/min. The only other gliders in the vicinity were a 2-32 and a 1-26 which were about 5000 feet higher than I was. The area of lift was quite large and the lift was very steady and even if not really fast. The 1-26 and 2-32 were talking back and forth quite a bit and the whole scenario was pleasant. The lift gradually tapered off as I slowly caught up to the other gliders. There were no obvious lenticular clouds in the vicinity although I could see some higher and to the north. The shadows were starting to get long which really added to the beauty of the scene. After some time, the 2-32 left and there was only the 1-26 and

myself. As I got higher, I started to feel a bit apprehensive about it all - being on oxygen was a new experience and I had had such a busy day that I was not really prepared to be where I was.

I was also experiencing a phenomenon well known to medical students. I was starting to wonder if I was feeling funny yet - and, of course, that would make me feel funny. It took considerable will power to convince myself I was still OK and to resist the temptation to get the hell back down.

I caught up to the 1-26 at about 25,000 feet and eventually got up to over 26,000 feet. I was not really cold except for my heels where they rested on the floor. Ice crystals started to form outside the canopy but there was no general fogging. The sun was well down in the west by this time and the ground was perceptibly darker. I finally left the wave area, flew back over the city of Colorado Springs, opened the dive brakes and descended steeply to about 18,000 feet. I then flew out of the high altitude area over to the field, opened the brakes again and landed at the end of the field well away from the buildings. I had forgot to allow for the pronounced upward slope of the runway.

My feet were very cold by this time and, when I opened the canopy, the glasses in all the instruments started to frost up. I was however, elated, since this flight should give my Gold altitude and thus complete my Gold badge.

The barograph was still ticking so I removed it from the glider and delicately carried it back with one hand while walking the wing back to the office area. I dropped it off in the office and tied down the 1-34. I returned to the office to find out that it looked to be alright and that I had (unofficially, of course) got my Gold height. Great jubilation. I also learned that I had qualified for a 1 Lennie pin - something I had not heard of before.

The four of us got together, unpacked a bit and I met another pilot who was going to be at Black Forest with us during the following week. He worked for an oil company in Saudi Arabia and was in the U.S. on a vacation. Keith, for some reason, refused to go to the Mexican restaurant that the rest of us picked out so we finally went to a place called the Three Thieves. We had absolutely enormous steaks, returned to Black Forest, talked a bit then turned in. I woke up about 3 a.m. and discovered that Joe snored very loudly - so much for sleep the rest of that night.

The next day (Sunday), it was my turn to have an upset stomach and I was suffering from lack of sleep. A new person (a medical doctor) arrived in his own aircraft, on his way (he said) from Kansas to Texas. He explained that weather had forced a detour and, since he just happened to have all his cold weather flying gear, and since, by great coincidence, he was also a glider pilot, he took the opportunity to book a glider (only the 2-32's were left now) for the next day.

I went to the office, got briefed on the 1-35 and took a long tow to 11,000 feet (4,000 feet above the ground) in the vicinity of the gliderport. It was another beautiful day and the flying characteristics of the 1-35 seemed quite nice. The flap arrangement appeared to be easy to operate and the steep glide path you could achieve with full flap was an agreeable

surprise. I flew over a range of speeds and flap setting and even thermalled a bit. It was considerably easier to fly than my Phoebus had been and I was feeling smug about having booked it.

I joined on the cross-wind leg over the office at 1000 feet above the ground, set the flap to 30° and the speed to 55 mph on the downwind leg and turned onto the base leg. I then pulled the flaps on to about 80° and really had to put the nose down to maintain 55 mph. Just as I was turning onto the final (about 300 feet above the ground), the flap actuating lever jumped out of its detent thereby reducing the flap, instantly, to about zero. I was still holding onto the flap handle which was loose in my hand. My speed immediately shot up and so I pulled the stick back; all the while groping back and forth with the flap handle trying to pick the actuating lever back into its detent. I was too close to the ground to risk taking my eyes off the outside. I finally caught it, pulled on some unknown amount of flap and managed to land - severely shaken. I now regretted having booked the 1-35.

I was at the far end of the runway *again* and the towplane landed near me, taxied over and relayed a comment from the office to the effect that I ought to improve my landings somewhat. They were, of course, unaware of the drama that I had experienced. After the adrenalin stopped flowing, I took another tow to just 1000 feet. This flight was uneventful and I made sure that the flap handle pin was firmly in the detent. I still landed at the far end of the field but was grateful for small mercies.

I didn't feel well at this point - my stomach ached and I didn't like the 1-35.

It was a very warm day (about 65°F) and I spent a lazy afternoon reading, dozing, etc. I didn't feel like tackling the wave although an airline pilot passing through for the day got his Diamond altitude.

I went to bed early but Joe's snoring kept me awake, I finally went out to the car, got out my sleeping bag and settled down on one of the couches in the lounge. Joe emerged about half an hour later - complaining that someone's snoring was keeping him awake! He went out and slept in the car.

The next morning, I felt much better but I did not relish the thought of flying the 1-35. It was partly that I was not feeling charitable towards it and partly because the lack of dive brakes would make the tow harder. Unfortunately, the 1-34's were all booked so I was now boxed in.

I got ready and got a tow about 11 a.m. It was another sunny day but there were more numerous lenticulars than on the previous days. I stayed on tow to 14,000 feet and watched the flying doctor who had gone off on tow before me, do his barograph notching, as I approached Pike's Peak. It really is an interesting manoeuvre. The rotor turbulence was a bit worse than on the previous occasion but nothing difficult. I was waved off in the wave at about 14,500 feet, notched to about 14,00 and had a very uneventful climb to 27,000 feet. The lift seemed weak and the wave area was fairly small. I flew with 8° of positive flap and at about 40 mph.

I was starting to feel a bit at ease and it was somehow comforting to listen to the good doctor who was having a real struggle

to get into the wave 12,000 feet below me. He finally gave up and headed back after what must have been a very exciting 45 minutes for him.

I was also getting used to being on oxygen and discovered the "Darth Vader syndrome" (poor Darth Vader - he controls the Force but it doesn't help his asthma) - the sound of your own breathing has a fascination of its own. The oxygen tank in the 1-35 had only been filled to 1200 pounds since they were running a bit short at the field and I kept my eye on the pressure.

Several lenticulars formed behind me, above me and below me at various times but they were fairly thin and did not cover a very wide area. I subsequently heard that one of them formed around Joe - much to his consternation. I could hear that the others from Saskatchewan were doing OK also and the flight was fairly uneventful for me. When my oxygen pressure got low (only to 600 pounds, but I was feeling conservative), I left the wave area and flew back over the city, put on 80° of flap and lost height rapidly.

I found that I did not like to have to apply so much pressure in order to hold the flap settings - in fact, my dislike for the 1-35 was now becoming obsessive. I landed without incident but still did not manage to get up to the office end of the runway. I think I must have subconsciously expected the flap to jump out again and so got very low before turning onto base leg. This flight lasted about two hours. I noted the rest of the Saskatoon bunch also landed at the far end of the runway.

After supper, Bob Barry (from Winnipeg), who I had met before turned up. We all sat around and had a very pleasant evening chatting about gliding. Joe was going to sleep in the car again and so I risked the dormitory - the other snorers didn't hold a candle to Joe.

The next morning was very clear with not a cloud in the sky. The forecast for the wave looked good and I was the second one off the ground. As soon as we turned towards the mountains, it was clear that today was going to be different. It was extremely turbulent and I had some difficulty in keeping in position. I found that I frequently ran out of aileron and I mentally cursed the poor 1-35 yet one more time. There was a momentary respite from the turbulence when we approached the Air Force Academy and I thought I might get waved off in what was obviously weak wave. However the towplane kept on going and we turned a bit south and headed for Pike's Peak. Very abruptly, we were back into the turbulence and the next few minutes were the worst I've ever experienced. The sudden jolts would throw me up against the straps and a layer of gravel would fly from the floor up against the canopy. The towplane ahead was dancing around insanely and I felt completely helpless dangling around on the end of the line. I decided that this was going to be my last flight no matter how it turned out.

Close to Pike's Peak, the vario suddenly pegged up and the towplane waved me off. I was at 13,600 feet (recommended minimum height to get back to Black Forest from where I was 14,000 feet). I immediately flew into about 1500'/min down - this was not supposed to happen. I noticed that the towplane off to my left was still going up like a bullet and so flew back into his direction. The vario pegged

up again. From the rate at which I was going up, I knew that I would have to notch soon or it would be too high. On the other hand, there were obviously areas of pretty good sink nearby, and the 1-35 flap arrangement was a bit more awkward to use than normal dive brakes. These reflections went through my mind in a very few seconds and I decided to notch immediately but ended up doing it rather half-heartedly. This may have saved me because when I recovered normal flying altitude the lift was only about 300'/min.

The lift varied widely for the next half hour or so until I got over 20,000. I probably averaged less than 300'/min until I got over 22,000 feet. I then found a patch where I could achieve 600'/min and gained about 6000 feet in it. I kept moving around exploring the area and found that, although the area of the up-going air was quite large, the rate of climb changed over fairly small regions of it.

I took a number of pictures although it was a bit awkward getting my camera out from under my parka where I kept it. I could hear the other gliders beneath me and they were obviously not doing as well. I was trying to remember what my notch altitude had been and thought that it must have been around 14,000 feet. In that case, I would need to get to 30,400 feet to get Diamond altitude.

When I got to that altitude, I was tempted to leave immediately but was haunted by thoughts of landing and finding that I had missed it by 200 feet or something. Since I was still going up, I decided to hang on till I reached the altitude that I was allowed to fly to - 31,000 feet.

I was starting to feel lonely and wonder about the oxygen system again. I did occasional sums in my head to make sure I was still functioning. I was also starting to have second thoughts about my barograph notch - it really hadn't been very deep and maybe it wouldn't show up on the trace.

When I got to 31,000 feet, I turned downwind and flew out of the wave area. I forgot to take a picture of the altimeter which was the main reason I had brought the camera. The wave area was, at this height, very large and I actually kept climbing till I was practically over the city.

There was not a cloud in the sky and it was not very cold in the cockpit. The visibility was fantastic in all directions. From this height, there was very little ground relief to be seen and the city looked as if it were painted on a flat brown canvas.

I dove down with 80° of flap over the city for what seemed like forever, flew over to the gliderport and landed. This time, I actually made it about half way down the runway - my best effort to day. The total flight time was 1:53.

I tied down the glider, took my barograph into the office and received some unkind comments about where I had landed. There was some loose talk about charging the Canadian group retrieve fees for their landings. I went back to the dormitory where I told (repeatedly) the few poor devils there about the flight. Then, I got a call over the PA system to come to the office - there appeared to be some difficulty with my barograph. My heart sank.

When I got there, I was told that they were having trouble finding the notch. I recounted

my experiences again and we took a careful look at the trace. We also had the radioec altitude of release from the tow pilot. On close inspection, you could see two actual dips which occurred after release. One must have been when I flew into the sink and the other due to the dip itself. After some time, the fellow looking at my trace said he "thought" the FAI would accept it. I was wildly elated.

Keith had already landed after gaining Gold height (for the second day in a row) and he and I drove into town in order to buy the mandatory case of beer for the staff. When we got back, Joe had landed having gained about 400 feet short of Diamond altitude. He had actually thought that he was considerably lower than that and so was having second thoughts about not having hung on a bit longer. Jan finally landed after a flight of 4:55 hours and realized (too late) that if he had not burned off all that altitude, he would have had his five hours duration and thus completed his Silver C as well as gaining his Gold height.

The Wave Flights people were still at the office calibrating barographs etc. and we all sat around for a while drinking beer and telling each other how rough the tows had been. One of the tow pilots said that it was a one and a half-strutter day. he explained that some days, when it was mild, you just flew the towplane normally with one hand on the stick and the other on the throttle. If it was rough, you used the throttle hand to hold on to a strut to brace yourself. On really rough days, you held onto the struts with both hands and let the stick look after itself.

That evening, we convinced Keith to venture into another Mexican restaurant. While having supper, we decided that we had had a pretty good go at soaring in the wave and that we ought to head back. We all had Gold height and Lennie pins and I had completed my Diamond badge.

The next morning, one of the tow pilots took off in a 2-32 at 7:00 a.m. and was back down on the ground at 8:20 a.m. having gained Diamond altitude in the meantime. The wave was apparently very strong. The turbulence was also strong and one of the people in the office said that a Cessna 206 had been flipped inverted on the approach to the Colorado Springs airport. None of us wanted to venture into those kind of conditions so we did not reconsider but paid our bills and left about 11 a.m.

It was windy but fair and as we drove north, it got windier and finally overcast. Towards evening, the wind got very strong and started blowing freezing rain horizontally across the road. We spent the night in a little mining town in South Dakota. The next day was very long as roads were impassable at some points and we had to wait for plows to clear the roads ahead of us. We arrived back in Saskatoon about 1:00 a.m. with blowing snow and a temperature of -35°C - very similar to the conditions we had left a few days before.

It was a super trip. The people at Black Forest were really pleasant, helpful and knowledgeable. There are enough things that can go wrong without asking for trouble and I would recommend to anyone that he get his high altitude experience at a place where people know what they're doing.

NO FAIR COMPARISON

by Bert Small



There is no fair comparison...between flying and being earthbound.

Thumbs up signal to the wing man, the bright yellow snake writhes and squirms slowly in the green grass, as the slack is taken up and finally straightens; a momentary pause and rumbling forward, clumsy at first, with unsteady wings, coarse controls, speed increasing, the controls suddenly sensitive to the slightest touch and airborne at least, as the wheel leaves the ground a strange quietness envelopes you...the true experience begins.

You have entered that new dimension! No question about it! One moment heavy, clumsy and earthbound. Suddenly transformed into a buoyant graceful bird. You rise in unison with the tow-plane now skimming the treetops at the end of the runway. Exhilarating, exciting, it can't possibly be explained but must be experienced.

The towplane banks into an upwind turn and you follow with a certain pride in your precision. The altimeter jumps up in short bursts as you drone on, slowly gaining height and you are eager and expectant for that ultimate moment of release...and...freedom! Finally reaching 2000', now carefully centered behind the towplane, a check all around for traffic, a last look to the right and now, that ritual to sever the umbilical which still attaches you indirectly to earth...the moment of release...chhuuunnnnggggg!!! A smooth climbing turn to the right and an eerie quietness leaves you in a state of euphoria.

The sensation of movement diminishes as your speed decreases and the earth spins slower and slower beneath you. The vario reads 400' up, gradually dropping to 200 but holding there for the moment. Now you are soaring! It stays steady on 200 up but as you continue to circle it improves - 250-300-350-

You work at centering as the altimeter climbs at a steady rate and now firmly established in this familiar dimension of space, wanting it to last forever, know that it never does...never will...last long enough.

Reaching cloud base you feel the calmness and coolness and see the slight misting of the canopy. As you continue to circle, drifting downwind, moving away from the airport, now far enough that you have to leave this cloud, penetrate upwind, back to the airport to find another which has that magical power to lift and sustain the flight.

Sometimes it doesn't come! You're in sink! Speed up...search...down you go...no lift...all sink...you've lost it! 1900'-1800'-1700'- there's a touch, but not enough...the vario moves up, but still in sink...never reaches zero. Now at 1300' scratching...1200'...head for the circuit. 1150'...no lift...1000' committed to land...no more chances!

Downwind - base - turn to final and that gradual glide over the fence - flare out - hold it off - let it settle - a smooth contact and all the noises and rumblings of earth return. Now back to another familiar environment, but not as enjoyable as your flight into space.

As you rumble and bump along, losing momentum, keeping it flying until you come to stop and finally letting the wingtip touch the ground, you have to admit it's all over for now and...you have returned!

Now you are the seagull; who soared all day over the sun-sparkled waters and the whirling, dizzying heights of the cliffs and now must settle in some dark hole, until another flying day begins.

There is no fair comparison...between flying and being earthbound.

The pleasures of soaring must be experienced to truly appreciate them...they cannot be adequately described.

1st International Sailplane Fair

BADEN-BADEN, GERMANY
12th - 14th October 1979

The first international fair for pre-owned sailplanes and motor gliders (ISM - International Segelflugzeug-Messe) will take place in Baden-Baden from 12th to 14th October, 1979.

Organiser of the fair is IGM (Internationale Gebrauchtflugzeug-Messe), Europe's largest fair for pre-owned sport and business aircraft, which was held this year for the fifteenth time in Baden-Baden.

The following persons and groups are invited to participate:

as sellers: owners of sailplanes and motor gliders, gliding clubs and other aviation sports organisations; further, the producers of sailplanes, motor gliders and supplementary and pilot equipment.

as visitors: prospective buyers of pre-owned sailplanes or motor gliders, and all those interested in gaining information about sailplaning.

The fair will take place at the airport at Baden-Baden. Each exhibitor will be allotted a set space for his aircraft. Trial flights with exhibited sailplanes can be made at any time during the fair. For this purpose, the exhibition management has organised tow aircraft and a team of helpers.

A fair catalogue will be printed and will include the technical details and price of the sailplanes on offer as well as the seller's address. A sign, on which the seller must detail the most relevant technical and sales data, is issued for each sailplane and must be displayed prominently in the cockpit.

For Saturday, 13th October, 1979 an extensive, supporting programme is planned. Gliding enthusiasts will be able to attend Lectures (incorporating slides or films) and group discussions on topics of current interest. For the evening a pilots ball will be held in the festival tent at the airport.

The initiators of the fair see as the purpose and goal of the fair the achievement of a neutral and objective market for pre-owned sailplanes. At the fair, prospective buyers can - in a relatively short time and without having to travel - obtain a comprehensive survey of the supply of sailplanes available. They can also make trial flights with sailplanes which are interesting for them and in this way, have excellent opportunities for comparison. The exhibition management takes no part in negotiations and transactions.

The German Aircraft Evaluation Centre (D.S.L.) will be present at the fair and will carry out evaluations on request by sellers and prospective buyers.

Further information can be obtained from ISM, P.O. Box 413, 757 Baden-Baden, Germany. Telephone: 07251-12412.

The Flying Squirrels of Chemong County

(A Fairy Tale??)

Once upon a time in the back corner of Chemong County in the Woodlot owned by Farmer John, lived a community of 58 flying squirrels.

They called themselves C.O.S.A. - Central Ontario Squirrel Association.

Every morning they had to get up and go to the selected place under the Oak trees and gather acorns to add to their supply.

Being a very advanced and efficient group, they had several carts stored in a shed to tow to the Oak trees, load up with acorns and return home.

These carts had to be removed very carefully from the storage shed and "Daily Inspected," so that a wheel wouldn't fall off, or the sides cave in when loaded with acorns.

Without exception, every morning the same six or eight squirrels would arrive first, remove the carts from the shed, inspect them carefully and tow them all the way to the place of the acorns, whereby with great effort they loaded the carts.

By now it was late morning and the rest of the squirrels arrived just when "Playtime" began.

Now, all the squirrels would climb to the



"THE FLYING SQUIRRELS OF CHEMONG COUNTY"

top of the highest tree and launch themselves into the air, to glide and soar and fly until they finally landed on the ground. This was considered great fun by all concerned and they even had wise instructors to teach the beginners how to fly, and how to stay up longer.

Being a methodical group they also assigned one different squirrel each day to keep

track of flight times, but invariably the appointed one was rarely there and it usually fell to the same one each time to be "Duty Squirrel."

Now as the day went by and everyone was screeching with delight at all the flying fun they were having; one by one the squirrels left for home, until there were only the same six or eight left, who had started out in the morning.

Everyone was tired, but the carts full of acorns had to be towed back to the storage shed, unloaded and carefully put away until the next flying day.

This went on for many years because everyone enjoyed that "Playtime" so much.

But, unfortunately C.O.S.A. didn't last forever, because the few couldn't continue to do the work for so many.

It's quiet in Farmer John's woodlot now.

You no longer hear the squeals of fun when all the squirrels are flying and the "Duty Squirrel" is counting 13:52 take-off and 13:56 landing.

The carts are slowly rotting in the storage sheds.

Farmer John is growing corn in all the favorite landing spots.

The squirrels don't even know how to fly anymore.

If you need proof of this...look all around Chemong County and you won't find one "Flying Squirrel" left there to this day.

Bert Small

C.O.S.A.

Central Ontario Soaring Association

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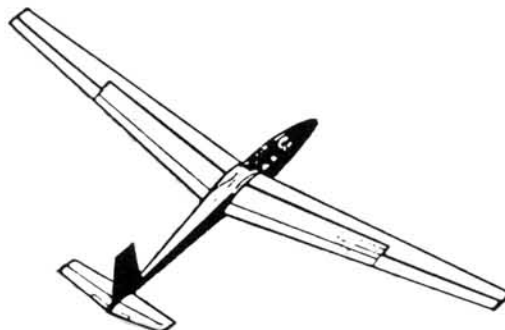
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Across the prairies by OR: IT SURE BEATS A COVERED

by Dave Baker



Not being a lover of what Christine Timm calls "Then I turned left, stories," I really don't know how to write one. However, Leanne is desperate for material for Soaring Scene, so if you can stay awake long enough, here goes.

The morning of May 14 at Chipman was bright and clear. At 10:00 hrs. Dave Marsden gave us a briefing. "Surface winds 290° at 5-10 mph. Winds aloft 310° at 10-15 knots right up to 10,000'. Trigger temp. 14° at 11:30 hrs. Cloud bases starting at 6,000 AGL rising to 8,000 AGL later. It should," said Dave in his soft voice and what I later came to realize was a magnificent gift of the understatement, "be quite a good day."

In fact it was tremendous. Mike Apps said later it was one of the best 2 or 3 days he has ever seen on the prairies. I believe him. The only problem with a forecast like that is that a chap doesn't have any excuses. If you get shot down it's all your own fault, and everybody knows it.

Looking at the map it was obvious, this was the day. The wind was right down the highway, a very important consideration for Grunau pilots. Thermals should be strong and close together, country is perfect with lots of landing fields all the way. If I can't make my silver distance today it's time to turn in my badge.

Everybody was busy choosing tasks. Eventually most chose Kitscoty and back. A good solid 300k out and return. I chose Minburn. A good solid 100k out. With a Grunau there is not question of a return. Now I know how those Kamakaze chaps felt.

"Where're yer going today Dave, snicker, snicker?" was the question as we pushed the Grunau to the line.

"Minburn first, then if it's going OK I'll keep going to North Battleford," I said, trying to muster as much dignity as possible. Everybody within earshot immediately col-

lapsed in gales of laughter. Now while I am the first to admit that my effort the day before was less than a resounding success, I really didn't think it deserved this display of disrespect. The day before I had also declared Manville. It was my first ever, solo, cross country attempt and it ended just 10k and one weak thermal downwind. However it taught me some valuable lessons, namely:

- 1 Prairie soaring conditions can cycle very quickly. From super to lousy in the time it takes to get ready and launch a Grunau.
- 2a Grunau's have lousy penetration
- 2b Grunau's only go one way - downwind
- 3 Ref. 2 above: Always release upwind of the airport when flying Grunau's
- 4 Ref. 1 and 2 above: Always release in lift. The hell with what the tow pilots altimeter says
- 5 Learn how to find, and work, a thermal
- 6 Have a friendly retrieve crew ready.

Thus armed with this vast store of X-Country knowledge my turn to launch arrived. Several giggling helpers shoehorned me into the Grunau and launched me in the general direction of up, secure in the knowledge that this relic would not be cluttering up their airport for several hours to come and they could get back to some serious flying again. With a last despairing glance around, and unable to think of a convincing reason to call the whole thing off, the Grunau and I found ourselves lurching skyward once more.

In all honesty, I cannot say the next six hours were difficult, not technically anyway. Physically it was excruciating, it was a superb day and apart from a couple of blue holes I had to tiptoe around it was just a question of endurance. Get high and stay high, was the first rule of the day. The second was, never pass up lift. I'm thinking of having, "Caution: This glider stops for all lift", painted on the back of the Grunau.

About half an hour past Lloydminster it became apparent that my incredibly accurate groundspeed-distance verses height calculations were starting to show a discrepancy. Up to this point I reckoned I was doing 3 1/2 to 4 statute miles per 1000 of altitude in cruise. Since I was cruising at about 50 mph plus a 10 mph tailwind I was doing about a mile a minute between thermals and since I spent about 50% of the time thermaling my average G/S should be about 30 mph. I noticed we were starting to drift north of track and our dist. verses height showed a disturbing trend, i.e. down. Closer inspection revealed that the wind was looking to the south and the thermals were weakening. About 20 k short of North Battleford I got my last good thermal that took us to 8000' but also drifted us north of track about 4 miles. Then the real struggle began. Heading towards the airport and - nothing, no lift. In dead calm air I found myself 800' above ground and 5k short, on the wrong side of the river and the town. I had my field picked out and was on downwind (?) when, what's this, zero sink, then 1/2 ft. sec, then finally 1 ft. sec. That last 5k took 25 mins. first creep across the river, then, how to cross the town? Naturally the airport was on the other side. They always are.

Eventually the Grunau and I worked out way around the north edge of town in zero sink, and crossed the airport boundary at 400

Grunau Baby WAGON, BUT NOT BY MUCH.



AGL. We landed at 19:05 in a beautiful, dead calm, prairie evening. 317 km from release in 6hrs. 45 mins.

Just before drifting to a half I deftly taxied the Grunau between two runway markers, only slightly clipping one, and parked 30' off to one side. After all, I didn't want to cause a commotion by blocking their active runway.

After struggling out of the Grunau and, 1, unkinking my body, which had been totally numb for at least three hours, and 2, kissing the ground several times, I tried to make myself presentable for the hordes of screaming admirers that were sure to come streaming across the field, like Lind-bergh in Paris, to greet me at any moment. Dead silence ensued. I ate an apple. Two crickets chirped. More silence. I practiced assuming a jaunty pose, helmet and goggles in hand, leaning on the Grunau, for the photographer. A frog croaked. More silence. Finally I gave up, tossed my helmet in the cockpit, and started to walk across the airport to the hangers on the far side. Why are airport buildings always on the far side? It took about 10 minutes to walk over in the silence of that beautiful evening. Just as I arrived, all hell broke loose.

Over the crest of the hill, up from town, appeared a roiling cloud of dust. The dust was full of fire trucks. Two of them! With a third in hot pursuit about half a mile behind. Sirens blaring, lights flashing and men in funny yellow suits all over them. They screeched to a halt in front of the terminal building and about eight men leaped off and all tried to rush through the door at the same time. Strange, I thought, the building doesn't look like it's on fire. Still, that's obviously where the action is so I veered off in that direction. About 30 seconds later the same eight men all tried to get out of the door at the same time. Upon gaining some manoeuvring room they broke and ran for their trucks. Unfortunately the chaps in the second truck got to

theirs first, and took off at a rate that would make A.J. Foyt look like a slouch, and almost obliterated three of their mates still running to the first truck. Mel Brooks couldn't have done it better.

At this point I began to have a horrible feeling. Was this my reception committee? When they got onto the runway and really let it all hang out in the direction of the Grunau I knew it. Visions of them charging on to the grass, slamming on the binders and doing a magnificent four wheel drift right through the Grunau, danced through my head. When, with relief, I saw them slowing down and stopping that was replaced with another thought. "Don't foam it," I called weakly, "It might shrink, and it's too damn small now," I added under my breath.

A few minutes later we all met in the aeradio office. An embarrassed radio operator, a dozen or so firefighters, singularly lacking in a sense of humour, and me.

"You the glider pilot?" one fireman, ob-

viously the bunch leader demanded.

"Yes," I admitted, "and I want you to know it's awfully nice of you chaps to come to meet me." He was not about to be mollified with sweet talk.

"Name and address," he barked. I told him. He turned to his boys, "let's get out of here," then to me, "next time call or something!"

"Right," I said, "but as long as you're here, I wonder if you could sign my landing certificate?"

He did too!

Footnote:

My special thanks to Mike Apps who not only completed his own 300k out and return but did another 600k to retrieve me.

No less than six out of nine sailplanes made their 300k out and returns, including Wayne Huk in his BG-12. And best of all was Dave Marsden who did a 400k out and return in his Gemini, to set a new Canadian Multiplace record. It was that kind of a day.

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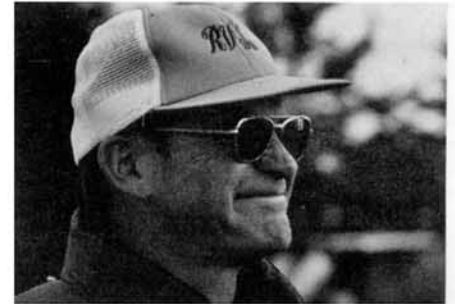
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THE IRON BUTT

Story & Photos by Glenda J. Stark



Glenn Lockhard was the 1978 winner of the Rideau Valley Soaring School's aptly named "Iron Butt Award". This award recognizes the untiring efforts of an instructor who, selflessly and cheerfully, submits him or herself to great numbers of hours in the back seats of club trainers.

As part of his prize, Glenn was presented a framed version of these three sequence-photographs. We caught him observing a solo student's landing: safe, but obviously of questionable elegance!!



The choice for this award is not an easy one, as R.V.S.S. is blessed with several such devoted instructors. But Glenn, in his quiet and unassuming way, carried a lion's share of the load. His commitment is unshakeable...to the sport, to the club, to each individual student pilot.

It is a joy to be taught by Glenn. It is with joy that he turns a student pilot loose to solo. Glenn is symbolic of those many indefatigable people who, in their often-unrecognized feats of quiet determination, are the very backbone of gliding in Canada.



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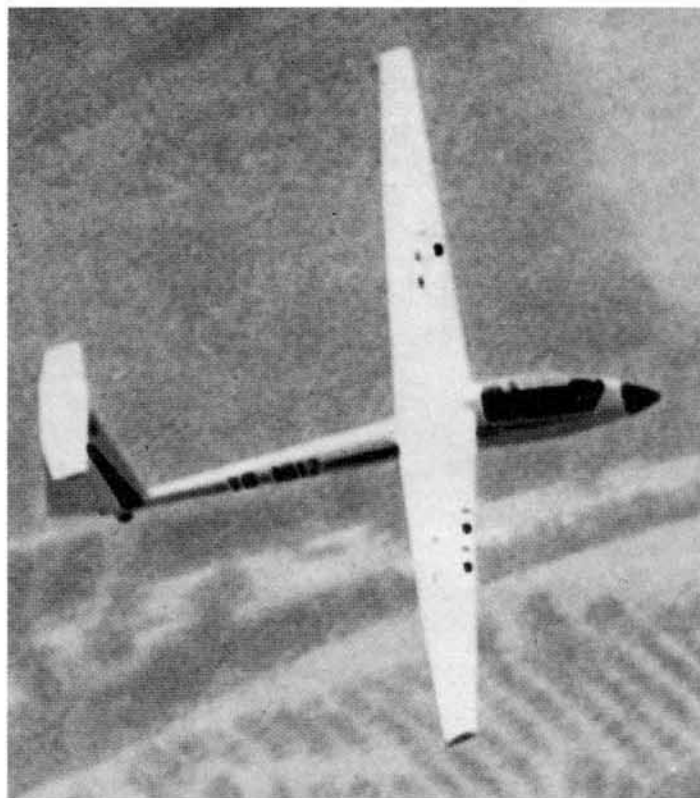


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Span	15.0 m	15.0 m
Aspect ratio	22.5	22.5
Empty weight	220.0 kg	290.0 kg
Max. weight	450.0 kg	470.0 kg
Water ballast	140.0 kg	120.0 kg
Wing loading	29-45 kg/m ²	36-47 kg/m ²
Best L/D (max. wt.)	42 @ 117 km/h	41 @ 117 km/h
Min. sink (min. wt.)	.56 m/s @ 73 km/h	.61 m/s @ 77 km/h
Stall speed (min. wt.)	60.0 km/h	66.0 km/h
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