



FREE FLIGHT

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FREE FLIGHT



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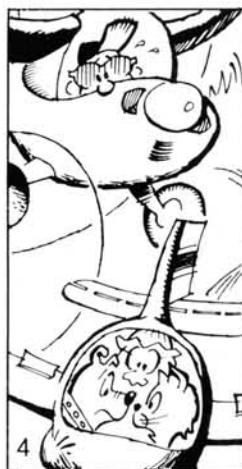
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NOTES ABOUT THE COVER PHOTO

The cover photo was taken at Chipman
Glider Field of the Edmonton Soaring Club
by Prof. Buck Holliman of the Virginia
Polytechnic Institute and State University
using a Canon AE1 with 50 mm yellow
filtered lens and Plus X film. Mrs. Marrión
Greenan, darkroom technologist of the
University of Alberta Hospital produced
the print. Mr. Ralph McNabb, medical
illustrator and artist designed the layout.
The photograph demonstrates the Ukrainian
Air Force in action with Col. Bachynski
in the cockpit while Commander D. Pandur
is reluctantly running the wing.



Letters 3

... Dual Unit Motion and
Balance Interpretation
Device, Environmentally
Acceptable for Sailplanes
PART II by J. J. Jinx 4

Club News 6
edited by John Bachynski

Hangar Flying 8

Landing at Mirabel
in a Sailplane 10
by Maurice Aubut

Club Supplies 15

Regional Contests
1978 16

World Gliding
Championships Report
1978 16

1977 B.G.A. Speed
Index List 16

1977 Canadian
Soaring Records 17
by Russ and Hazel Flint

Book Review 18
by Don Clarke

\$1000.00 Award to
World Contest Fund 18

1978 AGM 18

The Rain in Chipman
falls mainly ... 20
by Ton Diening

Notes from the President 21

Armchair Comment 21
by E. Feather

Class Ads 22



Letters

Dear Bob:

May I submit a rave notice for "DUMB IDEAS" by J. J. Jinx (P. 4 & 5, Sept./Oct. 1977 FREE FLIGHT).

Gliding publications, be they national or club newsletter, have a certain leaden quality due in part to a tendency toward highly technical dissertations on subjects requiring intense concentration and advance degrees in fluid mechanics. As regards your basic week-end pilot, his tendency is to stifle a yawn and leaf hastily back to "Letters to the Editor" in search of something a mite lighter. Let's hear it for J. J. Jinx (obviously a pseudonym) altho' my wife had to explain line 24, col. 2, page 5 to me, his spoof on the serious technical article was superb. I haven't laughed so hard since Thurber and Robert Benchley ascended to that great gliderport in the sky.

Cultivate Mr. Jinx before SOARING grabs him.

Grey Panther,
London, Ontario.

Dear Bob:

Two days ago (September 30, 1977) I received Silver Badge No. 467 which was completed by an altitude flight made Sept. 11/77 at the age of 63 years, seven months.

After the initial state of euphoria had abated a smidgin, musing set in. Competition flying? Definitely no. Gold Badge? Well, maybe. Records? Out of the question!

Ah, but wait! Perhaps I had one. In Canada obviously 466 pilots had made Silver before me but had any of them done it over the age of 63.6 years?

I hesitate to ask Ray Wilson to review the entire Canadian register and concluded the simplest way would be to claim the record "Oldest Canadian pilot to complete Silver "C" and await counter claims. Do I hear any?

Actually I think it would be good for the gliding movement overall to demolish the myth I once saw stated in Soaring magazine, "Gliding is a young man's game".

Gliding clubs in Ontario, with the exception of SOSA seem to be perennially on the verge of bankruptcy. If they had more members and more money they could provide more and better equipment and some of the amenities golf and tennis clubs offer. More equipment, more amenities, more members, more money and the snowball effect sets in.

What I am leading up to is the proposition that people up to say 25 years, in general, have the desire to fly, the capability and the time, but not the money. The 25 to 55 crowd have the desire, the capability, the money but little time to spare from their business or professional careers or their family life.

At over 55 (upper limit not yet determined) for better or for worse, the career struggle is winding down, the offspring have either fled or been ejected from the

nest and voila! You have a large, growing and relatively untapped group, who have the time, the money and the wistful desire to do something more satisfying than golf or gardening. The popular impression is that they no longer have the capability.

With appropriate humility (my athletic capabilities range from zilch to pathetic - ask my golfing associate), I think I may now assert that gliding is a marvellous sport for all ages and by no means beyond the physical limitations of the average (ugh) senior citizen.

Don McKay

Dear Editor:

Don't you think that we are sometimes carried away with very scientific explanations of very simple situation? I already meant to write you in regard to the controversy of where to fly behind a towplane.

It took me quite a while to study all these different vectors in Mr. Janzen's "Gliders and Wind Gradients" (issue 5/77) and for a novice this must be very confusing. (By the way, there is a minor error in fig. 2 - VI should go to the tip of the vector U₁ and not end on U₂) I also think that the formula -- stall speed + 10 + 1/2 wind = speed --, which is maintained throughout the landing procedure, is better to use than best L/D with an increase. Otherwise I do agree with Mr. H. Janzen -- I think it can be said much easier.

1. The wind gradient is a common meteorological phenomenon which is easily explained and understood. Everybody must have experienced it during training.
2. The fact that the flying speed is the sum of the groundspeed and windspeed ($x \cos a$) is also basic. Therefore I have to expect the flying speed to drop if the windspeed drops and the groundspeed remains the same (due to inertia). As a matter of fact, this is your only indication that you are now entering a zone of significant wind gradient. If this happens you must do the same as when you wish to increase speed -- put your nose down. Naturally you "trade" altitude for increased speed but you do that every time you leave a thermal and go on cruising speed!

If this is so simple, why do we have accidents?

1. The wind gradient can be very steep and start very abruptly.
2. The air speed indicator may have a significant time lag.
3. The pilot is occupied with landing procedures and cannot watch the A.S.I. continuously.
4. Poor circuit planning, too slow approach speed, attempt to stretch final approach, etc.

Solution? As usual -- anticipation. Expect a sudden considerable decrease of airspeed and don't only look but listen. If it gets quiet in the cockpit put your nose down.

Dr. G. Heinisch

Dear Bob:

The September/October issue of FREE FLIGHT certainly had some excellent reading which has fired me up to try for longer flights here in Manitoba; anyone willing to lend me a Kestrel?

H. Janzen's analysis of flying in wind gradients is I'm sure the definitive write up, and he has added some important thoughts to one of the most important stages in a flight. Perhaps a mention of the use of dive brakes when traversing a gradient is in order, as he has his deployed when entering the gradient but he doesn't say how to use them thereafter!

For safe gradient transversal (always assuming we know its there of course) his recommended procedure is to continuously nose down to moderately "increase airspeed" as the gradient is being flown through. The assumption that the airspeed will increase will perhaps only hold true if the gradient is slight - we usually will lose airspeed as is so well described in the article. As he says, to merely maintain the same speed it is necessary to nose down, and I couldn't agree more. As the nose is lowered, a higher rate of sink results and this can be compensated for by closing the dive brakes as required, even before starting to flare. These two manoeuvres are often difficult to instill in students while trying to teach speed control on the approach, but hopefully as they begin to "feel" how the aircraft is flying they will begin to instinctively do the correct thing. Unfortunately a wind gradient is not constant and there is often additional gustiness or turbulence especially in stronger winds or downwind of obstructions (who hasn't got trees around their gliding site?). These additional factors are often more hazardous than the gradient itself. They tend to be amplified if the air is unstable and can produce very tricky conditions for flying in strong winds. I often urge pilots to first fly dual on a windy day - it may well save their derriere.

Ian Oldaker.

Dear Bob:

Ways and means to reduce costs are foremost in everybody's mind these days. In response to Karl Doetsch's report in the S.A.C. annual meeting news I would like to suggest the following.

The S.A.C. Annual Report be made available on request only, perhaps at a cost to recover the expense of publishing and distributing. I have read through my copy and enjoyed its contents, but it has caused me to wonder how many copies go unopened. How about some other opinions please!

Ross McNee



A NOT SO SHORT HISTORY A "DUAL UNIT MOTION AND DEVICE, ENVIRONMENTALLY

reprinted from the Vancouver Soaring Scene, August 1977 issue.

Once I had decided to go ahead with my "Dual Unit Motion and Balance" system, I decided to draw up a comprehensive test flight program. After all, one cannot expect everything to go perfectly the first time. I've watched enough test pilot movies to know how it goes. Just ask John Wayne. I reckoned the actual program would need six flights to complete, occupying two days.

The test program was designed as follows:

FLIGHT 1: Cat only - Evaluate cat's response to normal flight manoeuvres. Acquaint cat with its duty station (on floor just ahead of seat and aft of rudder pedals).

FLIGHT 2: Cat only - Unusual attitudes and actual cloud flying.

FLIGHT 3: Cat and dog - To evaluate cat and dog as a team, and condition the dog to look for signs of sleep or tardiness in the cat.

FLIGHT 4: Duck only - Familiarize duck with flight envelope of 1-26; so he doesn't fly too slowly (or fast?) while on approach.

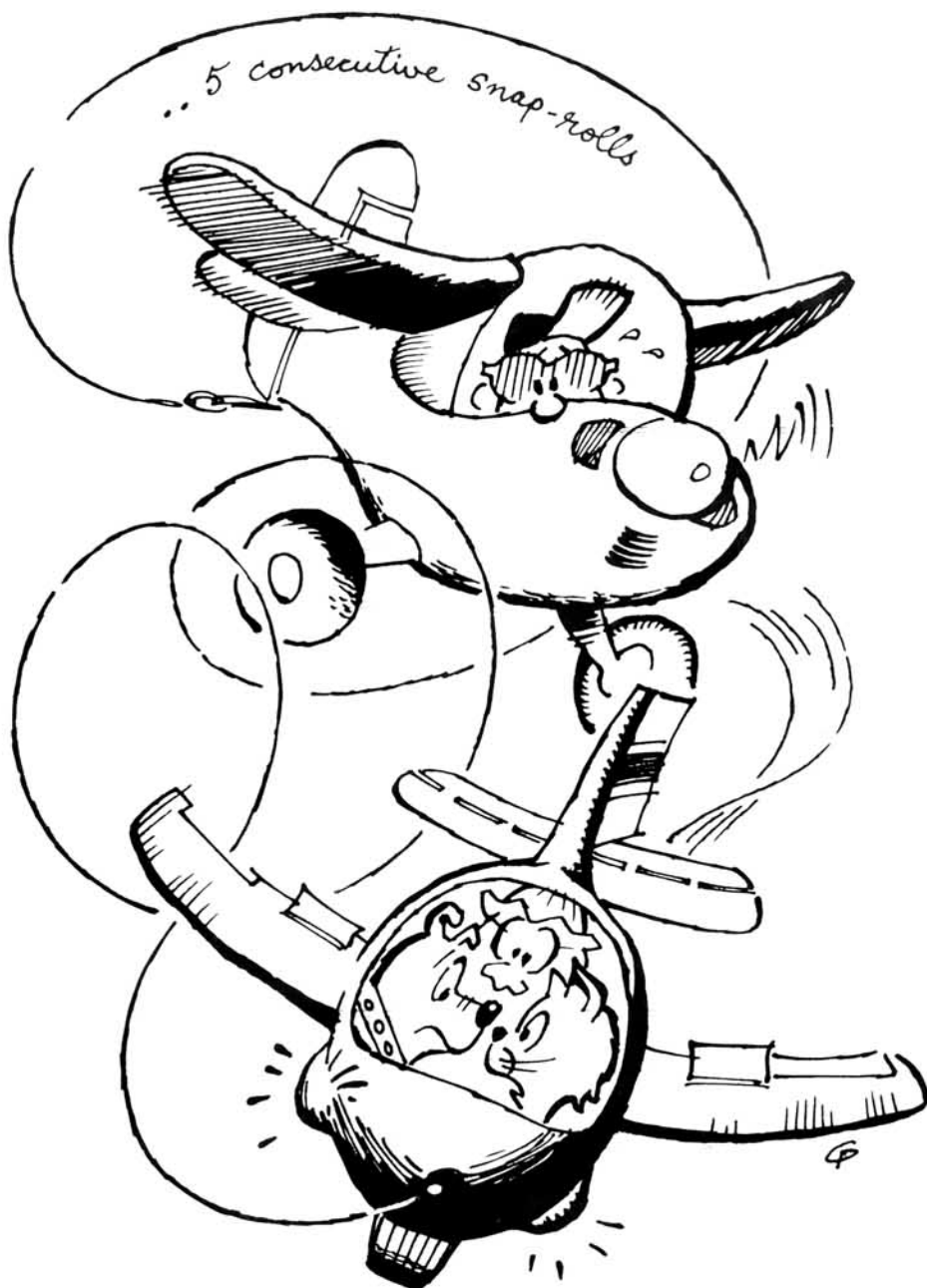
FLIGHT 5: Duck only - Actual approach initiated from within a cloud.

FLIGHT 6: Full system test - At least thirty minutes cloud flying to check cat's stamina finishing with a full D.L.S. (Duck Landing System) approach to minimums.

I felt that if we could accomplish the program as laid out it could be operational in time for the Nationals in Hawkesbury at the end of July.

Preparations for the first test flight included getting a suitable cat. No problem there. One of my children's cats volunteered to be the test unit. That will teach her to hang around the food dish out of meal times.

The first flight started well enough. The cat was installed in position on the floor of the 1-26 and a normal hook-up and take-off was performed. That's when the problems began. As soon as we left the ground the cat felt



Illustrations by Gil Parcell

OF THE DEVELOPMENT OF BALANCE INTERPRETATION ACCEPTABLE FOR SAILPLANES



Part II by J. J. Jinx

it was time to see just what she was getting herself into and poked her head up for a look. When she saw she was actually flying she assumed a most ungrateful attitude; namely, wrapped around my face with her eyes (and mine) tightly closed. The tow pilot later commented that he had never before seen five consecutive snap rolls done in a glider, especially one on tow. Order was restored in the 1-26 with only a couple of moderate lacerations to my face to show for it. By the time we had gotten off tow the cat had gotten used to flying and settled down to work quite well.

We performed some turns up to 45° of bank and were starting to try for 60° when she got bored with the whole thing and decided to take a look around. Naturally she chose the back of the fuselage and despite my dire threats of selling her to the local Chinese restaurant, chose the most comfortable spot just aft the wheel well and went to sleep. I had no option but to cut the flight short and land. Obviously there was no point in proceeding with test number two without a "Cat Alert System", i.e. dog, so it was decided to proceed directly to test number three.

Acquisition of a dog was a little more difficult. Only two dogs were readily available at the field. One was a sometimes white poodle of undetermined mental stability. The drawback here was that this dog and my cat were already acquainted and the cat was not afraid of it. Therefore it was decided to go with the other one, a Newfoundland puppy by the name of Bonzo, a strange name for a dog but there you are.

The biggest, and I do mean big, problem with Bonzo was his size. Not only was he big, but he was getting bigger and so quickly that of new C of G had to be calculated for the 1-26 twice daily. It took us an hour to cram everybody in the cockpit. First the cat was installed in position on the floor,

then Bonzo took his position just aft of the cat, and then I squeezed behind Bonzo. It took me ten minutes just to find the control stick, but finally it was located just aft and slightly to the right of Bonzo's rear fuselage. By bending Bonzo's head full left and mine full right we were just able to close the canopy and still see the cat and where we were going.

A normal take-off was made but I soon found that because of Bonzo's rear end I could not turn left and descend at the same time. Since I couldn't see left because of his head I decided it didn't matter anyway. A relatively uneventful thirty minute flight followed, consisting of nothing but right turns except for three slow rolls to the left caused when Bonzo barked at the cat. Not only did this wake the cat up but it blew her completely off her supports and wrapped her around my left foot and the rudder pedal.

Since time was running short, it was decided to skip flights four and five and proceed directly to test flight number six. The only modification to the previously mentioned configuration consisted of taping Bonzo's mouth closed and installing the duck, captured the night before in Stanley Park, behind my seat.

A 2000 foot tow to Hope Mountain, followed by a snappy climb and transition to wave via the "Mumford Method" (a hammerhead stall followed by an outside loop through the rotor) brought us rapidly to cloud base, climbing at 6 kts. The team swung into action like a well oiled machine and we were rapidly climbing through 12000 feet when Bonzo initiated the "Water Ballast Dump Test", an unauthorized modification to the program and clearly exceeding his authority. Beyond his authority or not, Bonzo proceeded with the test to its (and his) limit. It's incredible just how much water ballast a Newfoundland pup can hold. Actually the water

itself was not as much of a problem as the violently shifting C of G as the water sloshed back and forth from one end of the 1-26 to the other, alternating sending the aircraft into terminal velocity dives and near vertical stalls.

As the cat emerged from its third inundation, looking like a drowned rat and desperately trying to stay ahead of the rearward rushing stream, the problem solved itself when the ammonia content of the water did the trick and ate the bottom out of the aircraft.

A quick decision was made to abandon the flight and follow the duck down for a landing. After about 800 feet of near vertical descent the duck realized it was swimming in mid air and instantly reconfigured itself into the flight mode, necessitating a 12 G, rivet popping, cat flattening pull-out on our part. About an hour of relatively successful IFR formation work followed and just when I was thinking it was taking a hell of a long time for the duck to get back to Hope, we broke out of the cloud and immediately flew into heavy rain and then just as quickly into the clear again! The rain was really a fountain and we were on a very short final for Lost Lagoon, the duck's home base.

Several hours later, with a muddy 1-26 retrieved from the lagoon, cat rescued from the highest tree in Stanley Park, and Bonzo coaxed away from eighty-nine delighted kids who had witnessed our spectacular arrival, we were sitting in the car on the way back to Hope. I was drawing up a new test program to try to rectify some of the minor snags that had become apparent when one of my crew said, "Why don't you give up your DUMB-IDEAS program and just enter the 1-26 in the Sports Class?"

"Sports Class?" I said, "What's Sports Class?"

Club News

Edmonton Soaring Club's 20th Anniversary Year

A mild winter, early spring, and little snow appeared to be the formula for the start of a good year. However, a late snow storm refused to melt, much to the frustration of club members. Ed Norgard, the equipment manager had spent the winter recovering and painting one of the trainers and touching up the other two club sailplanes.

At last the weather broke and the last two weekends in May had ceilings of 10,000 ft. Hopes were high for a boomer season but it turned out to be a bummer instead. Rain fell steadily for over six weeks making the runway unusable. The lack of any significant funding to our club has not allowed us to have more than a hilly grass runway.

An instructors course was held the first week in July and barely managed to splash in enough flights. The weather cleared in August but the towplane developed problems and was laid up for nearly a month.

Labor Day week end saw days of fun in cool damp weather. Northern Alberta certainly had no drought. Our C.F.I., Garnet Thomas, organized timed events with club members in groups of three. Backing a glider trailer through an obstacle course, tie up tow ropes, spot landings, bombing, moving a glider from tie down to take off position and back, were some of the tasks.

Sunday evening's steak bar-b-q held in the newly completed hangar (Neil Bell got the doors on which kept out the cold winds) was organized by the Norgards and McPhees. The 20th anniversary Extraganza climaxed with the arrival of one of the charter members, Gordon Prest.

We hope to continue until the snow or frost shuts us down. Our spirits are high and plans are already being made to improve the equipment and field for our 21st year.

Cowley Summer Camp - 1977

The fifth Annual Cowley Summer Camp was the most successful to date, with fifteen sailplanes and up to three towplanes taking part, and over 210 flights made during the ten day period.

Many of those attending were from the Calgary CuNim Club, but others taking part included Jan and Nancy Driessen (back for the fourth time) from California, Linda and Stewart Tittle from Oregon, Donna (Killer) Kadar and Don MacClement from Kelowna, Ricki and Larry Riegert from Comox, plus several others for shorter periods of time. Bruce Hea, of Calgary, who has always been active in organizing the Camp, was unfortunately called away early in the Camp because of family illness.

Generally the weather was favorable, with strong thermals most days, but also with winds and turbulence. Flights to 12,000 to 15,000 feet seemed quite common. After a busy first weekend, we had



The newly completed hangar and the town of Chipman on the horizon.



a rest on Monday, which was washed out by steady rain. However, everything dried out pretty well during Tuesday, and a fair number of flights were made that afternoon. For the rest of the week the general rule was clear in the morning, with cumulus developing by noon, and frequently with some of the wind that the Crow's Nest Pass area is famous for. (On one day, gusts were actually measured at over 60 mph a few miles from the airfield!) However, the thermals were strong, though frequently they seemed to be broken up by the wind.

Early Friday morning lenticulars could be seen in all directions. We immediately phoned Calgary Terminal Control to have the Livingstone Block opened for high altitude flights, but thermals developed early and seem to dissipate any wave. Several attempts were made over the mountains and rotor-like turbulence was found, but no wave at our release heights.

Most pilots seemed happy with the thought that this should be a "Fun" camp, and the local swimming hole was popular. Only two cross-country flights were attempted, with Kevin Churchill (CuNim) getting within a few miles of completing a 300 km triangle. Unfortunately he caught a wingtip in a last minute turn before an off-field landing, and was hospitalized with

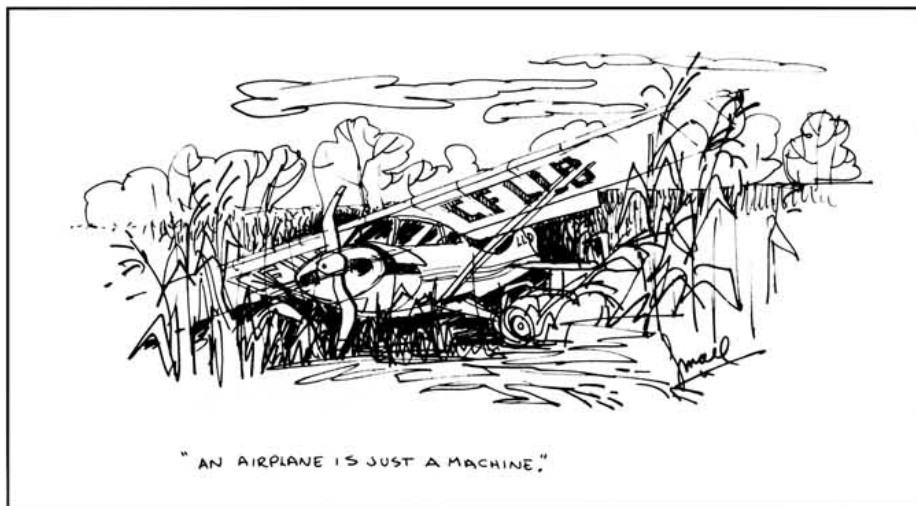


two broken ankles. Later in the week, Jack Parkinson attempted a 300 km out and return flight, but was forced down half way back, in the Indian country east of Standoff.

The last weekend, which included the August holiday, again saw extra visitors, mostly from Calgary. Everyone was sorry to pack up their tents to leave for home, but most will be planning to return for the Thanksgiving Wave Camp, this fall.

Rideau Valley Soaring School

Rideau Valley Soaring School was established in 1976 by Larry Rowan, Glen Lockhard and Les Staples; all past members of the Gatineau Gliding Club and experienced pilots and instructors. The club operates from a privately owned E-W strip beside the Rideau River, 20 miles south of Ottawa. Initial equipment was a Citabria and a 2-33, to which were added a leased Blanik and a 1-26D. The initial shortage of both instructors and tow pilots is being overcome as experienced pilots from other places come to Ottawa. Privately owned gliders have now appeared in the shape of a Kestrel 19 and Tony Burton's beautifully finished RS 15, with more pilots planning



(On Wednesday Aug. 24th about 5:00 p.m. our 19 year old towplane LLD took its last flight. It had been checked out by an engineer (who was in the back seat) and declared serviceable.

On take-off at 100 feet altitude the engine quit and our tow-pilot brought it in to the corn field without injury to the engineer or himself. LLD had served us faithfully for ten years.)

syndicates next year.

Despite the proximity of the Rideau River, thermals start early quite close to the field and the countryside allows safe cross country flights to East, South and West. In N and NW winds thermal streets persist quite late in the evening. When our new generation of pilots get their own ships, we should see a lot of achievement from this site. Next year, dual cross-country will be available in the Blanik, with courses chosen to stay in range at all times of the numerous small airstrips in the area.

John Firth

Kamloops Glider Club 10th Anniversary

Somewhere back in 1967, like in July of that year, Art Sellers from Langley flew a Skylark for a demonstration at Kamloops and later that evening a meeting was held at Kamloops Aviation to form a group interested in gliding. Shortly after that Dave Sellers brought in a 2-33 and towplane from the coast for rides and a switch-over course.

During the early organization of the club, the Mansell Barons were quite active and at this time John Bates offered his services to the club as he already had an instructor's rating. He has continued quite active since that time both on flying and maintenance of the aircraft.

Kamloops Aircraft purchased the first glider, which is our present TG3A CF-ZAY. With lots of work, hangar dances etc. the club was slowly formed and ZAY was used on a rental basis. Don Lurkins was the first solo student of the group having had previous glider flying experience at Langley. Don and Norman Shannik both progressed to Instructor's rating. I won't mention all the names of the enthusiastic club members as it is rather difficult to

recall who did what and when. Although they all worked hard to get an active club off the ground.

The Slingsby Kirby Cadet was the group's first repair project, after which followed the purchases of the Mk1 Cinema by Don Lurkins and a Mk2 Cinema by Lex Van Weley. Both aircraft came from Alberta and required major repairs to get them flying.

The club operated for several years off the Guichon Ranch strip near Nicola Lake, using mostly auto and winch tow. For a number of years JYJ, a 172 belonging to Norm Shannik was used for a tow plane. Many thanks to Norm.

Finally the group moved back to the Kamloops Airport and has been flying from there ever since using a MK 7 Auster for a tow plane. The club inventory now boasts: 1 tow plane, 1 winch, 2 homebuilt Dusters, 2 Cinemas, 1 TG3A, 1 BG12A and the Kirby in rebuild. All of which are on shares or privately owned.

During the past ten years of operation the club has gone visiting throughout B.C. and Alberta and has had many visits from other clubs. The group is not large and is basically a fun group, content to leave the competitions to the larger centres; but with experienced instructors and enthusiastic pupils it is slowly growing. When they are not flying they enjoy fishing, camping and other outdoor activities.

During the past years we have to thank the able volunteer tow pilot Norm Shannik, Ross Swaim, Larry Pollard, Danny Thomas, Al Bernardo and a few others. Last but not least, a special thanks to the boys in the control tower for keeping us in line and for keeping an eye on our aircraft when they are in the air and tied up on the ground.

Happy 10th Anniversary Kamloops!
Ken Mobley, Secretary

An Airplane is just a Machine

All airplanes start out as machines. At the factory they are put together from various pieces of metal, nuts and bolts, fabric and paint.

One machine is much the same as the next one and the one before it. When a flyer comes along and buys one, that is all it is, in the beginning. Just a machine.

No one can tell you that it has a heart or a certain pulse beat or any different characteristics than any one of a hundred of its type.

But - something happens along the way. As they fly together, this man and his machine, there is a gradual transformation into a partnership that cannot be explained.

They get to know each other - and even more important respect one another. They forgive each others shortcomings and compensate for them. They both say "You do your part and I'll do mine." Neither can fly without the other.

As they go through various adventures and good times together, a certain kind of love develops between them.

Impossible you say! Oh no it isn't!

Watch a flyer when he ties down his aircraft for the night. When everything is secured to his satisfaction; he is sure to touch a wing, or a cowl, or a strut as if to say "Thanks for flying with me to-day." And when he walks away, watch for that last glance over the shoulder, so he can see the whole airplane and remember the picture. Now, hand in the pocket, head down he walks away with memories of another flying day swirling by in his head, to be relived again and again.

The last picture we will remember of LLD is in a 30° bank; only this time she isn't flying. This crumpled friend lies in a cornfield and so will fly no more.

To some she was just a machine. But to others she was a partner, a friend and the other part of what makes flying the joy that it is.

Just as sure as a caterpillar transforms into a beautiful butterfly or moth, LLD changed from just a machine, to a flying creature loved and respected by those flyers who knew her well.

Now she will fly no more, but leaves behind recollections of many flights and adventures spent.

Our last picture is of LLD in that cornfield, but our memories go beyond that, to happier times.

... all airplanes start out as machines.

Bert Small
C.O.S.A.

Hangar Flying

New MOT Licencing System

The M.O.T. is introducing a new licencing system now that they have computerized themselves. Most clubs will have been invited to attend a briefing given by M.O.T. to introduce the first phase.

Briefly, persons wishing to learn to fly will not need to apply for a student permit, but a new "Licence Validation Certificate/ Student Pilot Permit" will be issued by M.O.T. following receipt of the medical report. This "permit" will indicate the medical status, and will have to be signed by an "authorized" club officer to make it valid for solo. To become authorized, club officers will have to attend a briefing, and before signing a permit to allow a student to fly solo, will have to check birth certificates, immigration papers (if not born in Canada), etc. i.e. will do the checks that M.O.T. previously did at the permit application stage. Similar checks are called for, to be done by the club, at the licence validation stage. Following this, M.O.T. will receive the paperwork and will issue the licence from Ottawa for a fee of \$15.00.

S.A.C. understands that if clubs do not have authorized officers the permit will have to be validated by M.O.T. before solo. To do this they will check birth certificates, etc., and then return the valid permit; Clubs will have furnished a letter (as used this season) certifying the student has reached

solo standards. At the licencing stage the procedure would then be essentially unchanged from the present.

New S.A.C. Information Bulletins detailing the new procedures are being prepared and will be issued to clubs in due course.

Nobody Outdraws Gil Parcell

We neglected to give credit to Gil Parcell for the drawings illustrating the article "DUMBIDEAS" (Pg. 4 Sept./Oct. 1977 FREE FLIGHT). See also this issue for Part Two of this article also illustrated by Gil. Anyone who has read FREE FLIGHT or SOARING would recognize Gil's distinctive style. Our thanks to Gil for his willing response to our request for illustrations - he's not a bad pilot either for a sailor!

Tell Your Story

If you have a story for FREE FLIGHT and need help getting it written, drop a note to Mark Perry who will give you what ever assistance you need. Mark's new address is 503 Rathgar Avenue, Winnipeg, Manitoba R3L 1G2. Don't let your wayward way with words hold you back; you too can be a writer for FREE FLIGHT. Just put your story down on paper in your own words and let Mark help you make it into a feature article. You have to do your own flying - all we do is help you tell about it.

Alouette ... The Larks are Here!

During the "Salon du Bourget 1977" held in Paris last Spring, the Canadian company Avia-Impex Ltd. has signed an exclusive importation contract, for the whole of Canada with Romania, which produces the different types of gliders and motor-glider "LARKS".

Avia-Impex Ltd. announces that the first gliders have arrived in Quebec City recently and have already flown, astonishing everybody.

In the opinion of glider-pilots these machines are just "wonderful to fly!" and believe me it is true.

For more information contact Christiane Hayet, 5050 Place Giroux, Quebec, G1H 4L1, (418) 628-7886.

One Letter Makes A Difference!

In his article about his 750 km flight (The Golden Triangle, FREE FLIGHT, Sept./Oct. 1977), John Firth made reference to his club by saying "I am now fortunate in belonging to a club well placed for an early morning start". This appeared in print with the word "now" changed to "not" which changed the writer's meaning completely. Many readers may not appreciate the good soaring conditions that exist at Kars; often early in the day, allowing for early starts on flights such as the one John flew last July.

A Great Ship and a Delight to Fly



Don't be Sorry - Order now

PIK-20E Flaps and spoilers - lock flaps for use in restricted 15 m class. Elevator trim interconnected with flap setting.

Order now for 1979 season

PIK-20E Motor Glider - retractable, electric start engine.

Technical Data PIK-20D

| | |
|---------------|---------------------------|
| Span | 15.0 m |
| Aspect Ratio | 22.5 |
| Empty Weight | 220.0 kg |
| Max. Weight | 450.0 kg |
| Water Ballast | 140.0 kg max. |
| Wing Loading | 30 - 45 kg/m ² |
| Load Factor | + 7.1 to - 5.1 |
| Best L/D | 42 @ 108 km/h |
| Min. Sink | .63 m/s @ 85 km/h |
| Stall Speed | 60 km/h @ 300 kg |
| Max. Speed | 262 km/h |

For further information please contact:

George Couser,
735 Riviere aux Pins,
Boucherville, Quebec, J4B 3A8
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Landing at Mirabel in a Sailplane

by Maurice (Moe) Aubut

Glider pilots through fierce determination, fly arduous cross-country flights to qualify themselves with "La federation aeronautique internationale" (FAI) for Silver C badges, Gold C badges and three diamonds to be worn on the latter. Every pilot ultimately aspires to attain proficiency badges. And that's the name of the game in soaring.

Usually, glider pilots develop a sixth sense for forecasting weather conditions before undertaking long flights and often take pride in doing so. From previous experience and a lot of gut feeling, intuitively they are able to foretell by the chemistry chance in their bone marrow that an unstable air mass permeating another part of the country should arrive in their area on any given day. Give or take a few days because local weather conditions are almost always unpredictable. Every minute detail has been readied beforehand and when ideal conditions present themselves with colossal updrafts they are ready to take advantage of the good soaring.

Pilots sometimes seem to possess the ability to predict excellent thermal-producing days. Whether or not the god given lift will continue pulling a small sailplane aloft again, again and again throughout a chosen day is a horse of a different color.

The Gatineau Gliding Club which I frequent regularly every weekend, opened its gates for two whole weeks one summer. Fellow fliers were taking holidays, hoping to fly as many hours as possible

*"This is definitely
going to be
a day
for a
Gold Badge
Attempt"*

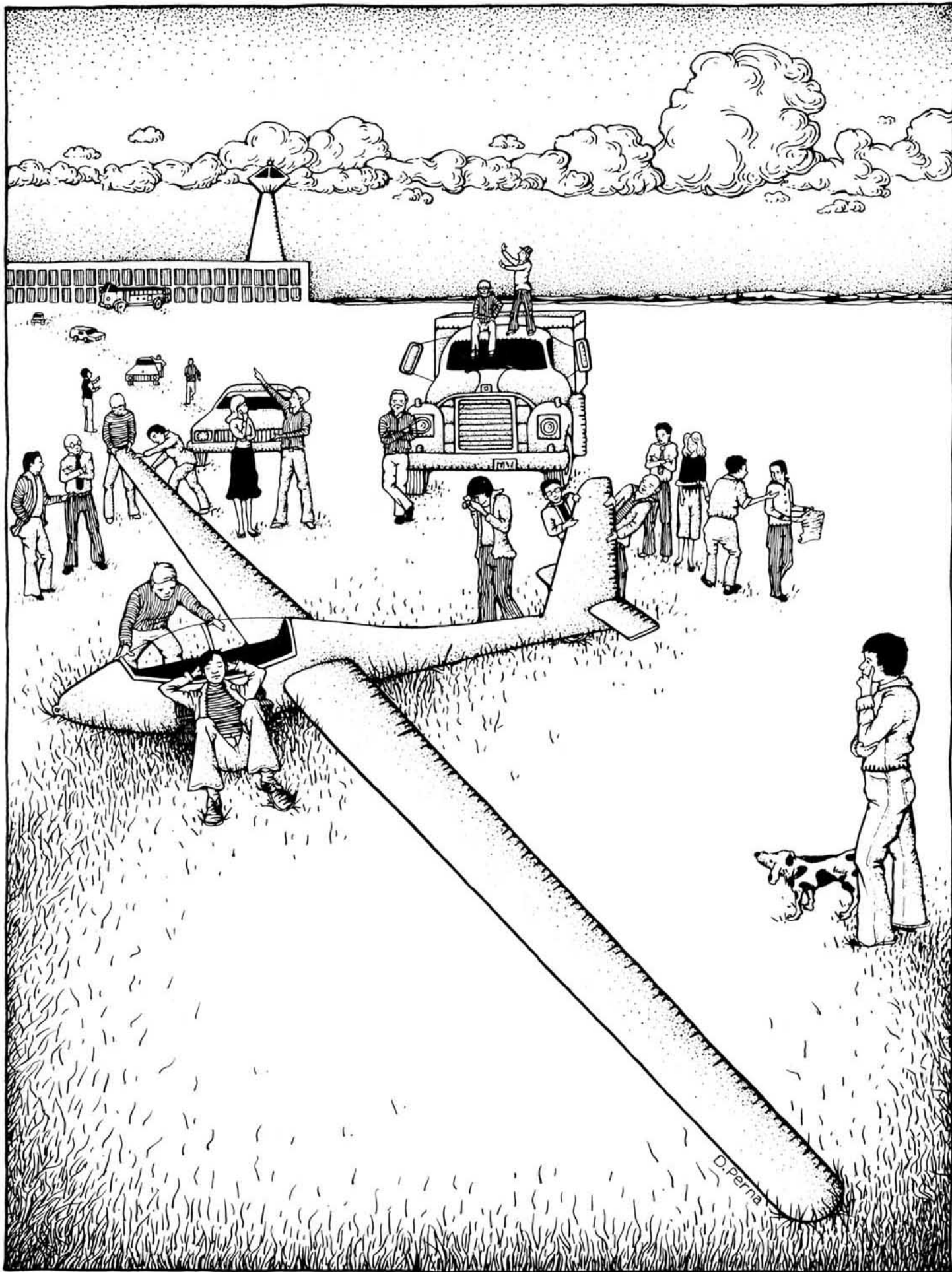
before the end of the soaring season. I literally sneaked away from mounds of work lying on my desk to join two fellow pilots on a 300 kilometer triangle (187 miles) cross-country flight. The completion of the triangle, if successfully flown, would qualify us for a gold badge distance and one of the three diamonds.

Cumulus clouds which sailplane pilots rely on to find lift or thermals, began developing early in the morning after a cold front had passed the area during the wee hours of the morning. White cotton ball clouds seemed stationary on the northern horizon over the Gatineau Hills. This was surely the day we had been waiting for all summer. In fact, I cannot recall the precise number of occasions we had predicted such days and had actually attempted similar flights. We were always frustrated by the elements and unsuccessful in our quest.

When somebody decided that is was going to be a hell of a soaring day, a mad scramble in the hangar ensued. Each sailplane was meticulously checked and a triangular course chalked on a blackboard which in turn was recorded on film. The cameras were secured in the sailplanes. They would be utilized to photograph two turnpoints to attest our actually being there. Our first turnpoint was a runway at St. Jerome Airport, northeast of our home base of Pendleton. The second was a small covered bridge at Wakefield, Quebec. Hopefully returning home safely after flying over that remote region of forested hills in the Gatineau.

A sensitive mechanical instrument, called a barograph which measures atmospheric pressure also had to be sealed and signed by an Official Observer. It was securely installed in the sailplane and would record the glider's flight in the air with an inked stylus on special paper affixed to a rotating cylinder.

Finally, all necessary preparations were readied and three sailplanes glittered in the sun. They were proudly hauled out to the flightline. Karl in a HP-14, a metal home-built with C-FWZT registration letters, flung a parachute over his back and snapped the buckles locked. He precariously climbed in the cockpit. Charts and note pad were neatly arranged for this important flight which could last up to seven hours of hard work and intense concentration. Other pilots helped close plexiglass canopy and he was the first to ascend aloft.



By this time large black-bottomed clouds were seen hovering over our airfield. It was an optimistic sign that good lift was being generated. Perhaps the gods of the clouds would smile down on us today, we thought. "This is definitely going to be a day for a gold badge attempt," I heard somebody say.

I was next to follow the HP-14 aloft. Before they hooked up the metal ring, I checked all the instruments on the front panel along with the control surfaces. Any malfunction up there could hamper any chances for that badge which had eluded me all summer. The barograph was ticking like an old clock in a small cubbyhole at the back of my head.

The Ka-6E lifted off the hot asphalt runway in a fifteen mile per hour wind long before the towplane was free of the ground. I felt rested and relaxed for this flight; anxious to fly cumulus clouds cross-country with buddies, which is a thrilling experience.

Tom was at the controls of a Phoebus 'B', a fifteen meter (49.2 feet) wing span fiberglass sailplane, and he lined up in third position behind the towplane. We had planned to meet somewhere between the clouds and fly the declared course together.

The lift was strong when I released my umbilical nylon cord at two thousand feet. A strong upward surge on the seat-of-the-pants seemed to lift the sailplane effortlessly in circling turns to cloud base at six thousand feet. I levelled the aircraft just below a cloud. Lowered the nose and sped away from the dark abysses of the mist. Ahead, another imposing cumulus was developing darkly into something grandiose. I pointed the sailplane in its direction, directly on track. The rays of the sun flooded the cockpit between opaque clouds and the solar warmth felt good.

Pendleton disappeared over the horizon when I completed the last circling turn under another cloud and I knew then that it was the point-of-no-return. The pace had been set, it was straight onward to St. Jerome. Often I scanned the sky for Karl. He must be far ahead, I thought. Meanwhile a brightly painted red Twin Otter raced by at the same altitude and a quarter mile on my starboard wing. Airtransit - passenger service from Ottawa to Montreal, I said aloud, feeling a little lonely sharing the sky with an aircraft I could not keep pace with. It disappeared among the fluffy clouds.

Because of the constantly changing conditions of the air mass, I was forced seven miles south off the planned track. The strong lift continued along the edge of a cloud bank, away from a massive blue hole to the north which I assumed could only generate sink. I caught a momentary glimpse of a sailplane below the bottom of the clouds. Was it Karl or Tom? I wondered. Perhaps it was a glider from the Montreal Soaring Council at Hawkesbury. I was steadily advancing in that direction, but a few miles further south of the gliderport.

I inadvertently continued to find one exhilarating thermal after the other and flew nonchalantly between a safe four and six thousand feet. Suddenly far ahead I recognized the distinctive lines of the HP-14, circling under a monstrous black cumulus.

I did not hesitate and banked the sailplane in the direction of his thermal. As I joined up under him into the vertical updraft, the HP-14 reached cloud base. He levelled off and shot away like a bat out of hell, directly on track for St. Jerome Airport. I was alone again, circling the sailplane higher and higher above the bounds of the earth in a solitude that was my very own.

"Hawkesbury ground - this is VNE - could you give me a radio check?"

The message came over the speaker broken and crackled. That's Tom, I thought, awakening to new life. Where the hell is he?

"VNE - this is FO-LO - what is your position?"

"Just under you - FO-LO."

I peered out the plexiglass bubble. Five hundred feet below was a beautiful white sailplane with aerodynamic symmetry and a high 'T' tail. It was circling in the same thermal.

We soon joined forces and from then on flew together like a pair of hawks, hunting updrafts. We both crossed a narrow neck of the Ottawa River over a small village called Chute à Blondeau, with only a hundred feet separating our vulnerable wing tips. Both sailplanes were defiantly crabbing against a strong crosswind and we could see each other, smiling at times. An overwhelming joy erased the memory of every sport I had ever undertaken: This was surely a sport conjured for the gods.

"FO-LO - this is OZH - what is your position?" The call blared sharp and clear from a glider at the club, thirty miles away.

"One mile northeast of LaChute Airport."

"OZH," he said, automatically terminating the transmission.

After two hours into the flight the clouds that had been producing permanent lift earlier were beginning to dissipate and deteriorate quickly. I lost precious altitude searching the sky for good lift. Finally after many tries, I settled for a weak one and fought like a madman, using every trick I knew to gain altitude. But that did not help. I could see landmarks that I had crossed recede in front with each completed turn. I was losing distance and drifting backwards with a headwind that was increasing in strength. I lost sight of VNE and the blue sky appeared. I headed out on track anyway. Now, my only hopes were of finding dry thermals.

"FO-LO - this is OZH - cirrus clouds from the south."

Somebody broke in on the transmission and I was not able to answer because weird things were happening. Tom came

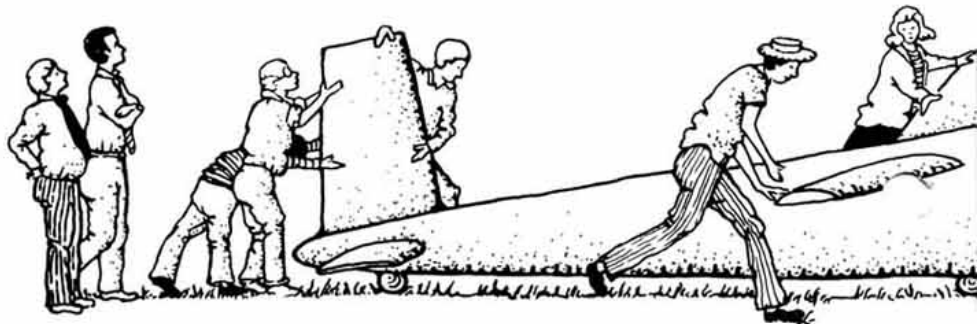
on the air. "Say again?" I asked. He repeated the message, but it was too garbled. I could not understand. I found out later that he had returned to base.

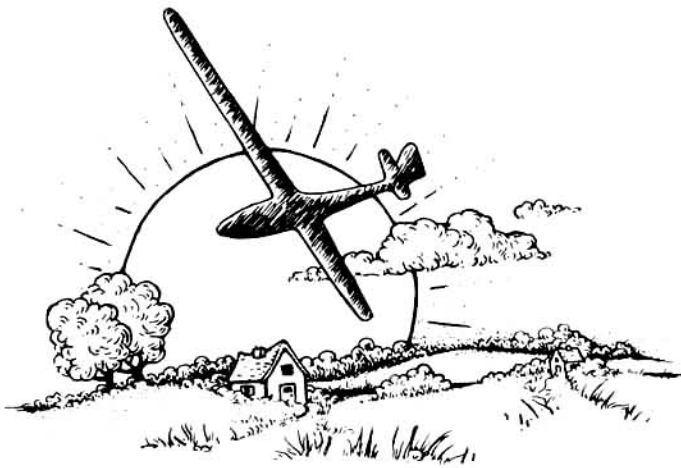
There was a long arc of cirrus and altostratus clouds to the south. The warm front stretched over both eastern and western horizons. So, that damn stuff is responsible for the loss of lift, I surmised. Determined to get around the first turn-point at least, which was visible just a few miles ahead, I continued before the blue sky became completely overcast from the south; that would eliminate all possibilities of finding lift.

I found myself below two thousand feet northeast of Lachute, perspiring profusely and anticipating an aborted mission. I visually searched the terrain below for a convenient field. The landscape was jagged and rolling, definitely unlandable without doing considerable damage to the aircraft. I knew the countryside from the ground and the main road was much too narrow. I tried once more to center into pockets of lift over a sandpit; no luck. There were just a few bumps which were broken and that I could not evenly center. To the south the Mirabel Complex stuck out like a sore thumb. What an airport to set a sailplane down safely, I thought. Three and one half mile runways, taxiways spreading in all directions like the tentacles of an octopus. Eighty-eight thousand acres of virtually flat land. I knew that Mirabel was not officially in operation. It sure would make a safe emergency landing field for a sailplane though, I kept repeating to myself.

There was dust oozing from a quarry between us and Mirabel where men and machine were drilling into shale. Try the quarry, there could be lift, I said aloud, which is a habit I have developed since flying sailplanes and especially when I'm in real trouble. But upon reaching it, I could only find minor bubbles of updraft. They were not strong enough to sustain a glider, let alone climb in the stuff.

At eight hundred feet I decided to make an emergency landing at the ever enchanting airport which was approximately seven miles due east. I pointed the Ka-6E straight in on final and the closest runway. It seemed like an eternity before I was reasonably close to the massive complex. Runways suddenly exploded to astronomical proportions. Dots I had observed with curiosity on the runways turned out to be parked cars and trucks. Workmen were yet distinguishable, except as small blobs. Awed by the majestic spectacle of such an oversized airport, with no way to turn away because I was too low and had committed





myself, I continued anyway. The fear of such a giant made my knees quiver ever harder. I never saw such a monster in all my flying days!, I said aloud.

Unusual conditions and numerous problems occur every second during an out-landing attempt. Every decision must be correct, if not, then one has to be damn lucky. Wrong decisions will multiply a hundredfold in the end. By chance, one of the right decisions I made then and there was to land on a smooth looking patch of green grass instead of the hard concrete runway. I could possibly scratch a wing tip, I thought, because of the single wheel on the belly of the sailplane, or hit one of the parked trucks.

We easily cleared the tree line, fences and all the low shrubs near the edge of the property and still had to apply half spoilers to get down at the near end of the green patch - I had seen a drainage ditch not far up on the side of the runway.

The sailplane came to a halt after a short roll. I looked out the canopy. Workers had not even budged. Heck!, I thought, I made a good landing and nobody saw it! On the other hand, perhaps they can't believe their own eyes. In an airport designed and built for supersonic jets like the Concorde, what was a yahoo without an engine doing at Mirabel?

I unlatched the canopy, gingerly rested it on the grass while still strapped in the sailplane. I proceeded to undo all the harnesses that held me tight to the seat and lifted myself clear of the cockpit with both hands on the side, feeling rather stiff in the joints after a two and one half hour flight. Upon freeing myself, I stretched

awhile.

A small pickup truck drove onto the scene. The driver saw my landing, I thought, and he's coming to congratulate me.

"You can't land here," he said, holding a microphone close to his bearded chin.

"The damn thermals gave out," I replied.

"Lucky you didn't land on the runways - they're closed you know," he said while at the same time, talking into his microphone. I made out the words "Mirabel Tower".

"I had no choice," I said sheepishly.

"How are you going to get out of here?" he asked.

"A towplane is coming to pull the glider," I said, hoping the club would agree to send an aircraft to tow me back home.

"OK!" he said, and drove away.

"Huh!" I snarled back at the vanishing truck and reached inside the cockpit for a drink from my plastic squeeze bottle. It was filled with warm apple juice and tasted awful. I pulled out the parachute pack and placed it on the downed wing facing into the wing, replaced the canopy securely, then walked towards the workmen on the runway.

"Hello," I said.

"Bonjour Monsieur," he said. "Vous atterrissez silencieusement?"

"C'est un planeur."

"Ah! Oui!" he said.

"Je veux utiliser un appareil téléphonique, Monsieur."

"Oui! Certainement, je vous y conduit immédiatement," he said. "J'aurai bientôt fini ce travail."

He drove me to a contractor's shed which comprised an office and storage com-

pound. I called the club, but was unable to contact the right person. So I left a message that I wanted to be towed out of Mirabel Airport. Somebody else drove me back to the sailplane, four miles away. I felt exhausted and so lay down on the grass with my head resting on the parachute pack and my soaring hat over my eyes, taking in the sun and fresh air. It's good to be alive, I thought.

A Japanese Toyota stopped twenty feet away. Two elderly men got out and made straight for the sailplane.

"You fly this?" one of them asked.

"Yes," I said, not budging from my comfortable position on the grass.

"Is it fiberglass?" the other asked.

"There's some fiberglass," I said, "but it's mostly plywood and fabric."

"Look at the finish on the wings," one said to the other, passing an appreciative hand over the leading edge of the wing.

Another car drove up. This time it was the RCMP. This is it, I thought, I've had it now, they have finally caught up with me!

"Salut!" the young constable said.

"Salut," I said and gulped, mouth agape.

"Vous avez manqué des courants de vent?" he asked.

"Oui!" I said, not enthusiastic about explaining that the wind currents do not keep gliders aloft. "Ces maudits nuages," I added.

"Vous venez de Hawkesbury?" he asked, and I wondered when he was going to make the arrest.

"Non!" I said. "J'suis parti de Pendleton, tout près d'Ottawa."

"Ah!" he said. "C'est très loin ça?"

"Vraiment, non."

"You flew from Ottawa?" someone else asked.

"I'll show you on a map," I said and pulled an aeronautical chart from the sailplane and unfolded it on the wing.

"Here - ici!"

A fire truck pulled up near the crowd that was growing in size every minute. Then two pickup trucks, both equipped with two-way radios joined us. Three more cars with large letters on the doors spelling "CAIM". Most of the people at Mirabel carried 35 mm cameras and took pictures of the sailplane lying mute with the huge control tower in the background.

"These pictures will be recorded in the annals of Mirabel," somebody said.

"The first landing was a glider!" another jested and they all laughed.

"He should have landed in October with the Concorde!" I heard another say.

I flicked the radio switch on, wishing to talk to anybody in a glider; there was no response to my call. In the meantime, more cars arrived on the scene. Everybody was enthusiastic and happy for the opportunity to get away from the chores of operating a complicated airport. They went as far as sitting a co-office worker, with a plaster cast up to his knee, in the cockpit with the stiff leg sticking over the side. His friends took more pictures.

"Tower want to talk to you, Monsieur," a truck driver said and motioned for me to take the microphone.

"Est-ce qu'il parle français?" I overheard tower ask.

"Y'é bilingue," he said.

I took the microphone, identified myself, where I came from and where I wanted to



go - home to Pendleton.

"Comment allez-vous sortir de là?" Tower asked.

"Il y a un avion qui est sensé tirer le planeur," I said.

Tower asked for the telephone number at my club and said they would make all the arrangements. He warned me that I could not land at Mirabel. Although the airport was not officially open, they were calibrating vital navigational instruments and a DC-3 was flying approaches.

"Merci bien," I said. "J'ai simplement manqué des courants de vent."

How I ever got out of that mess, I will never know for sure.

An outlanding will always attract curious people who somehow always manage to ask the same typical questions: How does it stay up? How high can it fly? How fast does it go? Where is the engine? It is a jet? I was their uninvited guest, therefore I felt obliged to answer every question with precise detail. I also had a persistent fear that Control Tower might have a change of heart and decide to make an arrest. At least, I thought, I would have some friends to bail me out of the clink. Nevertheless I felt I was doing my thing to spread good will and explain the ambiguities of the sport.

"We are closing the airport," Tower blared over the truck speaker, loud and clear. "A single engine aircraft is coming to pick him up in half an hour and they are not radio equipped."

A roar or laughter ensued, mixed with cheers that echoed from the crowd that had grown to quite an impressive size around the glider.

"Move all cars and trucks to the other side of the runway," Tower commanded.

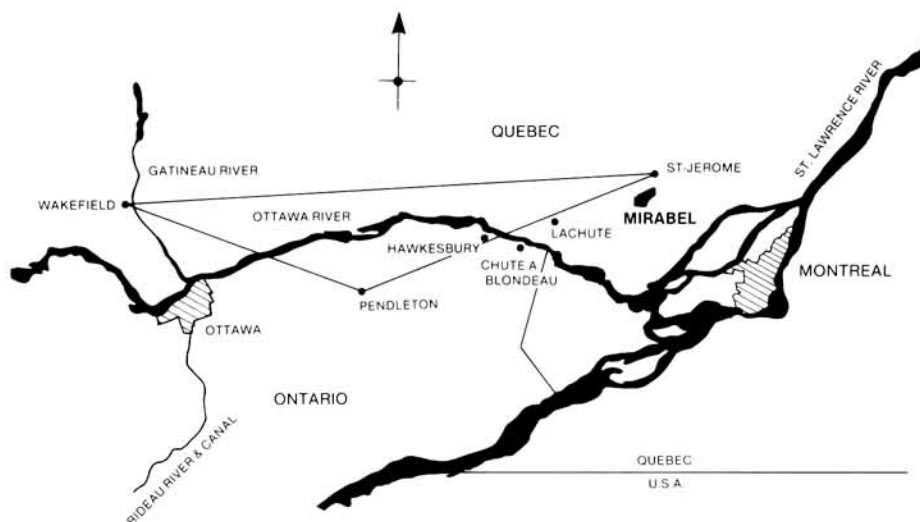
Vehicles pulled out in all directions at the same instant. Finally I was alone again and took advantage of the free time to lay down on the grass again. My head slowly unwound from all the redundant questions.

"There's the plane, Monsieur," the operator of a truck who had been instructed to stay close by said. Our club Citabria suddenly had appeared over the western horizon one hour later.

"Yes!" I said. "That's it alright."

The Citabria crossed the middle of the Mirabel aerodrome without communicating with the ominous 215-foot high tower. It turned lazily on the downwind leg twelve hundred feet above ground. Heads and bodies followed the progress of the tail-dragger in circuit. The pilot of the aircraft approached cautiously on final and flew close to stall speed directly over us at seventy five feet. He continued at that height for a mile, observing the surface of the ground along the concrete runway. Then the Citabria began to climb. My heart almost stopped. I thought they were leaving me behind.

Nobody could have been as happy as I was when the towplane landed five hundred feet in front of the sailplane. Gene and Rick disembarked from the tandem craft with a peculiar questioning expression on their faces. How in all hell's creation did you manage to land here? Of all places - Mirabel!



We pulled the Ka-6E across a small ditch with the help of the multitude who volunteered their services to push and hook up the glider. I strapped in once again, checked all the controls, locked the canopy over my head and signalled the RCMP constable, who was going to run my wing. The pilot of the towplane started the engine.

"Hold the wings level!" I hollered to the constable. "Plus haut!"

The towplane advanced slowly and the nylon rope unfurled in the grass. Then it was tight and stretched between us. I wagged the rudder to let Gene and Rick know that I was as ready as I would ever be.

"Hit it!" I said aloud, but they could not hear.

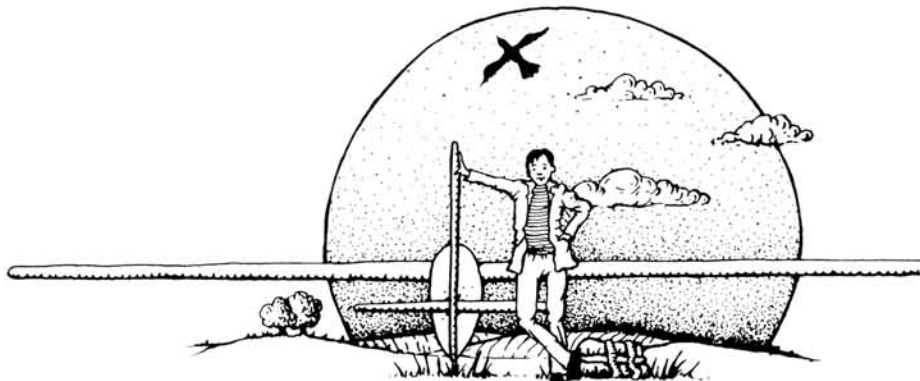
Dried blades of grass flew helter skelter behind the prop wash of the aircraft. We inched forward. The sailplane lifted quickly off the ground, wings level and handling beautifully. I remained as close to the grass surface as I could until the power aircraft began to climb and we ascended together. Within seconds we were over the only active area at Mirabel. Trucks and cars had already begun to move away. Some spectators were still visually following the attached aircraft. I deliberately rolled the wings in thanks to the good people I had briefly encountered at Mirabel and who had taken the incident with human kindness.

The taildragger levelled off at three thousand feet. Lachute and the small airport nearby appeared and disappeared behind us. We crossed the Ottawa River and continued southwest, past the town of Hawkesbury. It was the same air route we had so valiantly and proudly fought to gain distance against a stubborn wind. Now we were being humbly towed back to base like an incapacitated ship. The elements had won the battle once again.

Karl in the HP-14 had managed to get around the first turnpoint and back to Hawkesbury where he chose to land and take an aerotow home rather than risking an outlanding.

Miles away there were a series of uninterrupted lightning flashes that split the southern horizon now painted a threatening dark blue marine. The air was smooth, monotonous and uneventful. I spotted Pendleton Airport in the distance and waited impatiently to be in safe gliding range, then released the towline, happy to do so. Intentionally I pushed the stick forward and the airspeed increased. Then I pulled back on the column, at the same time banking the sailplane into a wing-over. I could feel the sensation of freedom and bliss of flight on silent wings once more.

Below my left wing a pair of falcons were gliding in a straight line, then dove out of sight over a red pine forest. They were free too!



Club Supplies

MEMBER CLUBS - LIST OF SUPPLIES

| ITEM NO. | DESCRIPTION | PRICE (ADD POSTAGE) |
|----------|--|---------------------------------------|
| 1. | F.A.I. Soaring Badges, "A" & "B" a) Button - Screw back b) Pin - Safety Catch | \$ 7.50 7.50 |
| 2. | F.A.I. Gliding Certificates & Badges: a) Application Forms for Certificates & Badges Claims are available from Club C.F.I. b) Gliding Certificates - S.A.C. Member - Non-Member c) Badge - "C" (button only) d) Badge - Silver "C" e) Gold or Diamond - SAC keeps no stock but issues a letter of authority for the applicant to order directly from the manufacturer. | N/C 5.00 18.00 8.00 11.00 |
| 3. | F.A.I. Soaring Awards & Rules Booklet | 5/1.00 or 25¢ ea. |
| 4. | F.A.I. Sporting Code (English or French) | 1.50 |
| 5. | S.A.C. Instruction Manuals: a) Part I - Instructor's Guide b) Part II - Air Instruction Notes c) Part III - Students Notes d) Air Cards - set of 11 plastic cards (8 x 5) | .75 .50 1.00 3.00 |
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| | | |
|-----|--|------------------|
| 8. | Weather Briefing Form N-052 (8 1/2 x 11 sht.) | N/C |
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| 10. | S.A.C. Blazer Crest (navy blue) | 9.00 |
| 11. | S.A.C. Decal | .25 |
| 12. | S.A.C. Cap (red, green or blue with white crest) | 4.00 |
| 13. | S.A.C. Glider Pilot Log Book a) single copy b) 25 or more | 2.25 ea. 2.00 |
| 14. | F.A.I. Cloth Badges - 3" diameter a) "C" b) Silver or Gold | .75 1.50 |

NOTES:

1. Item 2 (b, c, d or e) available only from Mr. R. Wilson, Chairman of F.A.I. Awards, Box 971, Kingston, Ont. K7L 4X8.

2. All other items available from Box 1173, Station B, Ottawa, Ont. K1P 5A0 or Mrs. T. Tucker, 786 Chapman Blvd., Ottawa, Ont. K1G 1T9.

3. All cheques payable to S.A.C.

4. NON MEMBER CLUBS: add 25% plus postage.

RETROACTIVE PRICE CHANGE

Due to increased prices quoted by our supplier, H. Birks & Sons, 'C' badges will be \$8.00 and available only in clutch back button fitting. FAI Certificates will remain at \$5.00.

To avoid delay in processing your claim please enclose the correct amount payable to "Soaring Association of Canada".



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1978 World Gliding Championships Report

As you might already know, the 16th World Gliding Championships will be held at Chateauroux, France, from July 15th to 30th, 1978.

The airfield is a former military base, named Chateauroux-Deols. It was used by the U.S. Air Force until 1966. Location is 5 kilometers to the North-East of the town.

Its geographic location is 230 km on a 195° heading from Paris. 46° 52' North, 01° 43' East. Field elevation 162 meters. The field has a very good concrete strip, 2,600 meters long, and sports a very good infrastructure (huts, parking, hangars, shops, a tower and lighting).

The city of Chateauroux has a population of 55,000.

The road network is excellent in quality and quantity.

Contest Dates and Number of Entrants.
World Championships, 1978:

Official training period:

8th to 14th of July

Opening Ceremony:

15 of July

Contest period:

16th to 29th of July

Closing Ceremony:

30th of July

The number of entrants in each class could be limited to 50. The optimum total number is 90, with a maximum admissible of 100. Three classes are planned:

Open Class

15 meters Class

15 meters restricted Class

Our seeding procedure has been initiated and the pilots should be known by the time this report is published.

Ship procurement has been going very well. It is a little premature to mention what our expected fleet will be, but it looks good.

We have requested nominations for a team manager from all Canadian Gliding Clubs. If anyone out there feels qualified to act as team manager, please contact the writer at the address below. Prior

World Contest experience is desirable.

We are also looking for crew members for the Canadian Team. If you are seriously interested and feel qualified to offer your services, please contact the writer at the address below. When applying, please state your experience, and practical background. In other words, what could you offer to the team?

The Committee is working on several fund-raising ideas, with the Fund standing at about \$5,000 right now. If you have any thoughts on this topic or want to donate any time or ideas, you know the address. You will be hearing more about fund-raising soon.

The 1978 S.A.C. World Contest Committee members are:

Paul J. Thompson - Chairman

John Brennan - Fund Director

Jack Knowles - Treasurer

Let's get behind our team and help them make the 1978 World Championships a success for Canada.

Paul J. Thompson, Chairman

1978 Regional Contests

No bids have as yet been received for regional contests for next year. Various pilots from the east have proposed a return to a Nationals every year, but since attendance at Regionals is sporadic and hosting a Nationals is a much bigger responsibility, it seems that such a move would be premature. Furthermore, since host clubs are likely to be nearer east than west, the Alberta and especially B.C. pilots are unlikely to be able to attend, according to our B.C. committee member. We thus solicit bids for running Eastern and Western Regional Contests for 1978.

Handicapping, A Proposal

We are about to experience another jump in the cost of an imported glider with the dollar down ten percent. This will make it more difficult for young pilots to compete in any class. With dilution of experienced competitors into three classes, it is hard to get worthwhile comparisons between various pilots and for any of us to measure our real progress.

In England handicapped contests have been popular for several years; with no National Championship at stake, and entries of over thirty gliders unlikely, we ask 1978 competitors to let us know their feelings about a one class handicapped Regional Contest. The handicaps would probably be based on the B.G.A. list (see below). The Vancouver Soaring Association has run two such contests in past years which were well received. Communicate!

John Firth, Chairman,
Sporting Committee

1977 B.G.A. Speed Index List

| | |
|-----------------------------------|------|
| Nimbus, ASW 17 | 118% |
| Kestrel 19, ASW 12 | 116% |
| Kestrel 17 | 110% |
| Diamant 18 | 108% |
| Mini Nimbus, Mosquito | 106% |
| PIK 20, Std. Jantar | 104% |
| Cirrus 17, Phoebus 17, DG 100 | 102% |
| Std. Cirrus, ASW 15, LS1, SHK, | |
| HP 14, Astir, Hornet | 100% |
| Std. Libelle | 98% |
| Phoebus 15, Cobra 15 | 96% |
| Dart 17, Foka 5, IS 29D, | |
| Club Libelle | 94% |
| Pilatus | 92% |
| Ka 6E, Foka 4 | 90% |
| Dart 15, Olympia 419, SF 27 | 88% |
| Skylark 4 | 86% |
| Skylark 3, Ka 6, Std. Austria MKI | 84% |
| Pirat | 82% |
| M 100 S, K 14 | 80% |
| Skylark 2, Ka 8 | 78% |
| Blanik, K 13 | 76% |

1977

Canadian Soaring Records

Though the year is not yet over, most clubs within Canada have ceased operations by this time, except for the occasional wave camp or perhaps a trip to some attractive U.S. site. So we decided to bring you up to date on the Canadian record scene. The table shows the records as of October 8, 1977. We have included some extra information this time also - the year in which each record was set. Twenty years should be long enough for any record to hold up, so let's see a bunch of 78's in there next year!

Each of the new records this year appears in a previously unclaimed category, though one of these was set and then broken only a month later. The details are as follows.

Dan Pandur (citizens) 300 km O & R speed: 85.6 km/h

John Firth (citizens and territorial) 300 km O & R speed: 102.7 km/h

John Firth (citizens and territorial) 750 km triangle speed: 87.4 km/h

John Firth (citizens and territorial) Distance round a triangular course: 753 km

We would like to congratulate John Firth particularly on his 750 km triangle flight, which also exceeds the current Canadian straight distance record by a significant margin.

Russ & Hazel Flint
SAC FAI Records

Late News Item

November 1, 1977

Paul Thomspson announced that the 1978 Canadian World Contest Team has been selected. Dave Webb, Hal Werneburg, John Firth and Jim Carpenter will be flying for Canada at Chateauroux next July. At the time of this announcement a team manager has not yet been appointed: if you feel you can help the world contest team in any way contact Paul Thompson now!

| FAI No. | TYPE OF RECORD | OPEN | | | FEMININE | | | MULTIPLACE | | |
|-----------|---|---------------|-------------|------|-------------|------------|------|-------------|-----------------|------|
| 4.6.1 | Distance Straight distance | R.M. Cook | 724 km (C) | 1971 | A. Williams | 305 km (C) | 1975 | A. Pow | 235 km | 1957 |
| | | D. J. Marsden | 676 km (T) | 1968 | " | 209 km (T) | 1973 | | | |
| 4.6.2 | Straight distance to goal | D. J. Marsden | 676 km | 1968 | A. Williams | 305 km | 1975 | R. Shirley | 153 km | 1959 |
| 4.6.3 | Out and Return distance | J. Firth | 554 km | 1976 | NC | | | D. Marsden | 334 km (T) | 1968 |
| 4.6.4 | distance round a triangular course | J. Firth | 753 km | 1977 | NC | | | W. Chmela | 388 km (C) | 1976 |
| | | | | | | | | NC | | |
| 4.6.5 | Speed round a triangular course (in km/hr) | R. M. Cook | 113.4 (C) | 1970 | A. Williams | 54.5 | 1976 | D. Marsden | 98.1 | 1975 |
| a | 100 km | J. M. Firth | 103.8 (T) | 1975 | | | | A. Williams | 31.0 (Fem. C) | 1970 |
| (not FAI) | 200 km | R. Mamini | 91.6 | 1973 | M. Barritt | 68.7 (C) | 1970 | G. Buhr | 42.8 | 1969 |
| b | 300 km | R. Mamini | 110.1 | 1973 | NC | | | D. Marsden | 69.9 | 1975 |
| (not FAI) | 400 km | J. Firth | 77.9 | 1974 | NC | | | NC | | |
| c | 500 km | R. Mamini | 101.8 | 1973 | NC | | | NC | | |
| d | 750 km | J. Firth | 87.4 | 1977 | NC | | | NC | | |
| e | 1000 km | NC | | | NC | | | NC | | |
| 4.6.6 | Gain of altitude | | | | | | | | | |
| | Gain of height | W. F. Chmela | 8321 m (C) | 1974 | A. Williams | 5898 m (C) | 1969 | R. Shirley | 7100 m | 1961 |
| 4.6.7 | Absolute altitude | W. Mix | 7420 m (T) | 1966 | | | | A. Williams | 2987 m (Fem. C) | 1970 |
| | | W. F. Chmela | 12449 m (C) | 1974 | A. Williams | 9772 m (C) | 1969 | W. Chmela | 10390 m (C) | 1975 |
| | | W. Mix | 9705 m (T) | 1966 | A. Williams | 3940 m (T) | 1973 | R. Shirley | 9085 m (T) | 1961 |
| | | | | | | | | A. Williams | 4206 m (Fem. C) | 1970 |
| 4.6.8 | Speed over an Out & Return Course (km/h) | | | | | | | | | |
| a | 300 km | J. Firth | 102.7 | 1977 | NC | | | W. Chmela | 65.0 (C) | 1976 |
| b | 500 km | J. Firth | 85.8 | 1976 | NC | | | NC | | |
| (not FAI) | Speed in straight Line (km/h) | | | | | | | | | |
| (not FAI) | 100 km | D. Band | 59.4 | 1975 | NC | | | W. Chmela | 47.0 | 1971 |
| (not FAI) | 200 km | J. Firth | 70.0 | 1970 | NC | | | NC | | |
| (not FAI) | 300 km | W. Mix | 108.6 | 1966 | NC | | | NC | | |
| (not FAI) | 400 km | NC | | | NC | | | NC | | |
| (not FAI) | 500 km | D. Marsden | 97.1 | 1970 | NC | | | NC | | |

1978 AGM

The Winnipeg Gliding Club is pleased to announce it will host the 1978 Annual General Meeting of the Soaring Association of Canada, Saturday, March 18th at the Marlborough Inn in downtown Winnipeg.

Since this is the Annual General Meeting of the Association we look forward to a good turnout of members and delegates from across the country and it is with pleasure we sponsor the meeting in Winnipeg this year. We hope this will offer an opportunity for more westerners to attend and with their fellow enthusiasts partici-

pate in the organization and business sessions and thereby help to improve this great sport of ours, soaring in Canada.

Some may recall that Manitoba Soaring Association hosted two glider meets in recent years; one during our provincial centenary and held at Carman, Manitoba in 1970 and the National Soaring Contest held at Pigeon Lake in 1973.

Accommodations at the Marlborough seem reasonably priced. Room rates at the time of writing are \$25.00 for singles and \$29.00 for doubles, con-

Book Review

by Don Clarke

Green Air - by Dave Harper -
Popular Library

The title of this pocket book, whose only claim to fame is that of being the most forgettable book in any collection, may catch the eye of soaring pilots, but the fly leaf contains the real grabber, for it describes the life of the soaring pilot: "Sail-planes ... are guided by the knowledge and nerve of pilots who every moment must make life and death decisions alone (sell that to your local safety committee!). These pilots live in a very special world - high in

the sky, (at 1000 feet, in a 1-26, away from home) where excitement is as natural as breathing, and on the ground, where pleasure is pursued with equal disregard of risk ..."
Uh-huh.

The story is laid in Alaska, and predictably, that isn't all that is laid in Alaska. But back to the story. The World Championships are being held in Fairbanks, and one of the events involves a race from Fairbanks to Pt. Barrow, on the northern tip of

\$1000.00 AWARD TO WORLD CONTEST FUND

The Ninety-Nines Inc. have given their 1977 Aviation Award to the SAC Canadian Team going to the World Contest in France in July 1978. This was a most generous donation and quite unexpected; it will be a big help to the team members representing Canada at Chateauroux.

The Ninety-Nines Inc., is an international organization of women pilots founded in 1929 by Amelia Earhart. The name of this non-profit organization derives from the fact that ninety-

C.F.I.'s Seminar

A seminar is now being planned by the Executive, and the Safety and Instructors' Committees for early in the 1978 flying season. This seminar will probably be held at an eastern club, and will last for three full days, most likely in May. The annual instructor courses will be omitted in 1978 but will be resumed in 1979.

At this seminar C.F.I.s will get involved with several aspects of training, and will contribute to the setting of S.A.C. standards for club operational procedures, safety programs, conversions to high performance aircraft, etc. In addition to dual, flying-training exercises, it is hoped that arrangements can be made to have a number of different aircraft types available for C.F.I.s to get checked out in.

We are hoping to get Sport Canada funding for this venture but it will be several months before we get a final indication. In any event registration will probably require clubs to support sending their C.F.I. to the seminar. Details are now being worked out and will be circulated to all clubs as soon as possible.

Ian Oldaker,
Chairman, Instructors Committee

vention rates.

We have reserved twenty rooms in advance. For reservations please write directly to:

The Marlborough Inn,
331 Smith Street,
Winnipeg, Manitoba
R3B 2G9

and be sure to state that you are an SAC delegate for identification and select service.

Should your wife or family come along they will find the Marlborough located in the heart of downtown

Winnipeg and conveniently located to shopping, the art gallery, planetarium, the Man and Nature museum and a variety of eating places.

The meeting rooms for the business sessions are located on the mezzanine floor of the inn. They have proved popular for such purposes and they are also conveniently located to the dining room, lunch room and coffee shop, and the lower level cocktail lounge - all of which have been styled in a 1914 motif for distinction.

The President's reception is laid on

for Friday night, March 17th and we look forward to seeing you there.

Informal consideration has been given by some of the Winnipeg Gliding Club members to offer SAC members attending the AGM accommodations in their homes for the Friday and Saturday nights. Anyone who may be interested is invited to contact Harvey Bachman so that arrangements may be made.

If I may borrow an expression from our friends in the deep south, let me say, "Now, yo' all come - yu hear".

Alaska. Now admittedly I have never soared across the northern tundra, (but I have skied, weasled, dog-sledded and flown over it) and there may be something which can produce thermals, but somehow or other I don't see the possibility of much activity across 100 miles of soggy, flat tundra. This the author wants us to believe, after getting his heroes and heroines across the Brooks range, surely one of the world's most inhospitable looking mountain ranges.

Aside from improbabilities, there are several inaccuracies.

We learn that Gus Breglieb produced the Sisu, that the glider pilots signals the tow pilot that he is about to release by rocking his wings, that the wing runner signals to take up the slack by rocking the wings. The name of the aircraft in which Will Rogers and Wiley Post cracked up near Pt. Barrow is given as the WILEY MAE, (it really was the WINNIE MAE). Some of the events attributed to the char-

acters in the story may sound familiar to those who have heard aviation stories and myths over the years.

Nit-picking aside however, the book is a very light adventure story written by an author who seemed to have a superficial knowledge of both gliding and Alaska. I guess the authentic novel about our fascinating sport still has to be written. Meanwhile save your \$1.50 towards the purchase of a new variometer.

nine women pilots voted in favour of holding an organizational meeting on November 2, 1929, on Long Island, New York. From the original ninety-nine charter members, the number has grown to nearly 5000. There are approximately two hundred Ninety-Nines in Canada.

One of the aims of The Ninety-Nines is to provide the camaraderie which leads to a close relationship among women pilots which goes beyond geographical and political boundaries. Ninety-Nines also provides the framework to unite women pilots to encourage them to continue to improve and to up-date their aviation skills. This encouragement is not limited to women pilots alone but to all members of the aviation community.

In order to motivate and measure flying skills, individual Sections or Chapters of The Ninety-Nines organize contests, air meets and races. The Ninety-Nines also encourages young people in their interest in aeronautics through providing speakers, by sponsoring aviation seminars, by supporting scholarship funds, the Museum Trust and Aviation Awards. In 1975, the East Canada Section established the 99's Canadian Award in Aviation. Since that time, awards have been made to The Western Canada Aviation Museum, to Dr. R. Kempton to assist

in the preparation of a documentary film "Human Factors in Flight". In 1976, Dr. Alan Frosst received part of the award to aid his work in the preparation of visual presentations to improve pilot safety. The 1977 award was given to the Soaring Association of Canada to help defray the cost of sending a Canadian Team to the World Soaring Championships in France in July 1978.

The Ninety-Nines is composed of women from all walks of life; doctors, lawyers, nurses, teachers, librarians, housewives, mothers, grandmothers,

secretaries, executives, business-women, saleswomen, public relation representatives, entertainers, air traffic controllers, weather specialists, government employees and flying instructors. Ninety-Nines are committed to the support of all things pertinent to progress and knowledge in the aviation field and are united by their love of flying.

SAC and the Canadian Team greatly appreciate the encouragement given by this fine organization of dedicated pilots.

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“The Rain in Chipman falls mainly...



Standing left to right: Ian Oldaker, WGC; Jim Strong, ESC; Ray Darby, ESC; Ted Lightly, WGC; Kevin Churchill, C-NGC; Dave Runyan, ESC; Donna Kadar, OSA; Kneeling: Eric Craig, OSA; Tom Diening, CLSC; Keith James, ESC; (The sun did shine).

during the **Western SAC Instructors Course”**

The Western SAC Instructors Course was held at Chipman, Alberta, during 2-8 July 77. Chipman is the home of the Edmonton Soaring Club and the Ukrainian Air Force. A total of 9 pilots attended the course, coming from areas between Winnipeg and the Okanagan Valley. Ian “Stripper” Oldaker was at the helm doing his instruction during the rain and doing his thing with a very elusive sun. The ESC contingent was represented by Jim “7 Sec” Strong, Ray “No Spins” Darby, Keith “Money Bags” James and Dave “Eleven” Runyan. Jim maintained an attention span of short duration; Ray wanted to spin a 2-33 and got his just reward; Keith very ably ensured that ESC got what it deserved and Dave was pleased we did not stretch the course to 11 July. The Winnipeg member

was Ted “Once Over” Lightly. Ted added humor and savoir de vivre to the excellent weather. From Calgary Cu-Nim, Kevin “Go Get” Churchill came and it was amazing how roomy a 2-33 really is even when you are 6’6”. From the Okanagan Valley, two students arrived each in their own 172 braving a trip over the rocks. Donna “Killer” Kadar came from Kelowna Gliding and added the feminine touch to this course. With a “Black Belt” in Judo - a very mean Glider Pilot. Eric “Linus” Craig from North Okanagan arrived with fresh cherries from B.C. How is that for advertising “B.C. Finest.” Eric and his jacket did not part! Why fly coordinated if there is an easier way? As you can see, it sure was a mixed bunch. Ian was able to ride herd successfully and another good

course was held. A lot of thanks goes to the excellent support provided by ESC, in particular Garnet Thomas, Victor Berg and Ron Passmore, who were willing and able tow pilots. ESC is thinking of modding their towplanes with floats. Accommodation was arranged at the Chipman Airport Hilton (bring your own, no charge) and the Downtown Hilton (\$5 a night and all the water you could drink.) Because of the rainy season, downtown was the place to stay, except you may not make it out to the airport. Gumbo will get you any time, even in this drought area. Who still believes in forecasts? Again, to Sports Canada, SAC, Ian and ESC, for an excellent course, thanks from all of us.

Tom Diening
C.L.S.C.

NOTES FROM THE PRESIDENT

As I am gathering thoughts for my notes the phone rings and I am told that yet another glider pilot has been killed. That he belonged to the only Canadian glider club not a member of the SAC is little comfort. It appears his 1-26 spun in from about 800 feet. Only one fatal accident this year involved a high-performance glider. All the others (3 with the Air Cadets, 3 in SAC clubs) involved "safe, low-performance" aircraft. Are we too ready to accept the theory that "nothing will happen" in 1-26's and 2-33's? All gliders are safe when flown according to the book, all gliders are dangerous when we ignore the book.

On a more positive note, Paul Thompson and his World Contest Committee are getting into full swing, but they need the cooperation of many, if not all glider pilots to help our team succeed at Chateauroux in 1978. Congratulations to John Firth on his new Canadian distance record of over 750 Km. Anyone who has ever flown a small power plane over the same course (Ottawa, Peterborough, North Bay) will appreciate what it means to fly a glider over this inhospitable territory. Yours truly went to Ottawa recently and had some very interesting discussions with people

in Sport Canada and Transport Canada. Improving the government's understanding of our sport, and improving our understanding of what the government can and cannot do is one of my priorities for SAC. Along similar lines, if you plan on importing a glider into Canada let me suggest you check with SAC first. It may save you time, effort and money. Many of you seem to get well tangled in red tape before asking SAC for help. The SAC, through its Medical Committee and especially Dr. W. Leers was instrumental in helping a member with a medical problem to get the first "restricted" glider license issued in Canada. This means that people with certain medical problems can now continue to fly, but cannot carry passengers. SAC is also negotiating to have the EKG requirement, if not all medical examinations dropped. Don't get your hopes up, but it's worth a try. And finally, now that the season is almost over, there seems to have been a definite increase in cross-country flying this summer. If statistics bear out my intuition it would be a real sign of progress on the Canadian Soaring scene.

Finally, let's talk money again. The directors have reviewed the proposed budget for 1978. An outline of it is given below. This

budget does not include items funded out of government grants, but shows only the funds which must be raised within the SAC to keep us going. Since we can't pare the expenses the directors will propose a \$6 per member increase in the SAC dues for next year at the next AGM.

1978 PROJECTED BUDGET

| INCOME | |
|-----------------|----------------|
| Membership Dues | \$19,000 |
| Free Flight Ads | 700 |
| Interest | 300 |
| Supplies (Net) | 60 |
| | <hr/> \$20,060 |

| EXPENSES | |
|-----------------------------|----------------|
| Printing (Inc. Free Flight) | \$12,600 |
| Postage | 1,500 |
| Office Supplies | 1,00 |
| Professional Fees | 700 |
| Association Memberships | 500 |
| Directors Expenses | 1,200 |
| Instructor's Schools | 1,500 |
| Salary/Honoraria | 9,100 |
| Sundry | 500 |
| | <hr/> \$28,600 |

| | |
|-------------------|----------|
| Projected Deficit | \$ 8,540 |
|-------------------|----------|

"ARMCHAIR COMMENT"

by E. Feather

Research into the elusive shape (?) of thermals and the ever present sink holes has been frustrated this season - not sure why, as I seem to have had some good x-countries and have yet to land out!

However my attention was drawn to the question of compensation - for varios, of course. Now we all at one time or another have been subjected to Bernoulli who claimed that total energy equals potential energy plus kinetic energy. This is written as: $E = p_x + 1/2\rho V^2$, where p_x is the local static pressure and V is the airspeed.

When I was a tyro pilot I kept on flying into stick thermals which, much later, I discovered was merely a trade between my p_x and $1/2\rho V^2$! In other words my vario would show a good climb rate as I pulled back (inadvertently) and therefore slowed down. Pretty soon I could control my speed pretty well and I enjoyed chasing those other thermals in the 1-26. When I graduated it became clear that I needed something else and an ad for an Althaus venturi caught my eye. "Good, I'm glad you're getting one," enthused my wife. She kept referring to my outhouse venturi; I later found a explanation for her enthus-

iasm as I visited our club's outhouse.

This device when connected to a vario is designed to give a reading: $P = p_x - 1/2\rho V^2$ which if you work it out, will give your perfect compensation for those stick thermals. Now I could zoom up into thermals, trading my high speed for height knowing all the time that the vario reading was giving me my net climb rate, and the venturi was compensating for the change in airspeed (from maybe over 100 kts to 45 or so).

One advantage of an outh ... sorry, an Althaus venturi is that at a yaw angle of perhaps $10^\circ - 15^\circ$ it stalls. Thus if your flying is sloppy and you yaw all over the sky the venturi won't work well and your audio vario will play a funny tune. My flying is now much better!

One problem here is that professors will say I should add a factor C_D in front of the second term in the formula above, because the venturi is not perfect! (C_D is called the co-efficient of discharge.)

C_D should equal 1 for perfect compensation and the Althaus, Nicks and now the Braunschweig tube all profess to have a C_D equal to 1. This has meant a lot of zooming with all sorts of tubes in my fin,

and others, to try and sort out whose C_D equals 1. Wind tunnel tests (I couldn't get my wings in the wind tunnel) supposed showed C_D equal to all sorts of numbers around 0.7. This means that compensation is not perfect although pretty good for most medium performance machines.

Come to think of it my Althaus seemed to indicate a pretty good thermal during the zoom; I often could not find it again when my speed settled! This would indicate a C_D less than 1. The Nicks tube again performed similarly, showing good compensation for medium zooms, but indicated a good climb on a zoom from 100 or so. Not so good for our glass machines of today.

The Braunschweig tube on the other hand claims a C_D very close to 1 over a large speed range and a large yaw angle range. So if you are happy to slip and slide (I am) and want lots of compensation go with ... but that's advertising isn't it? And don't forget, you have to mount the tube the right way up - up for Australia and down for Canada!

Have a Merry Christmas.

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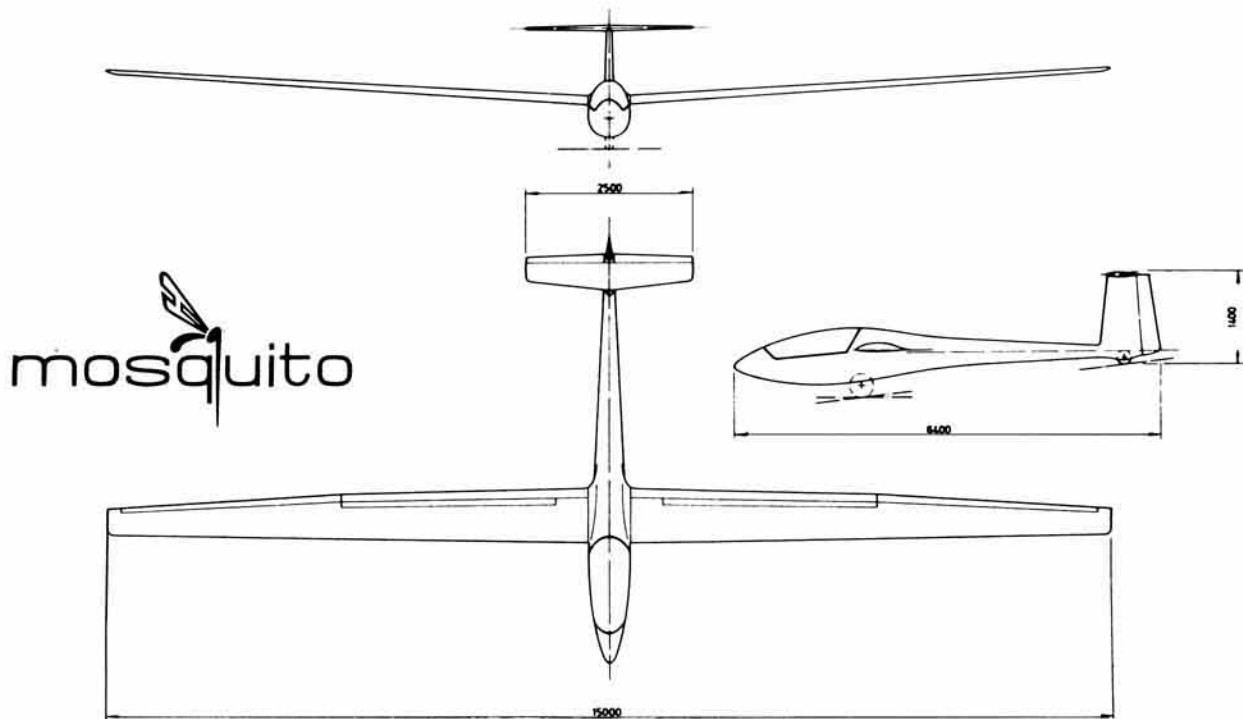
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Glasflügel Mosquito claims three national 15-meter speed records!

Flying his Glasflügel Mosquito, Roger Frank of Caldwell, Idaho, has claimed three U.S. 15-meter speed records, including a 100 km triangle at 101 mph.

On September 5th Roger flew a 100 km triangle from Hailey, Idaho, to Kane Lake, to Russian John Ranger Station, and return to Hailey, at 91.15 mph. Five days later he shattered his own just-claimed record with a speed of 101.01 mph around the same course. This remarkable flight narrowly missed breaking the world Open Class record of 102.742 mph.

Again flying his Mosquito, on September 6th Roger topped his previous national 300 km record of 64.2 mph with a flight from Hailey, to May, to Stanley, and return to Hailey, at 83.54 mph. This speed exceeded the present national Open Class 300 km record, but not by the 2 kmph needed to set a new mark.



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