



Free Flight

THE NEWS LETTER OF THE SOARING ASSOCIATION OF CANADA

1/70

December, 1969

January, 1970

EDITORIAL

Though the flying season in general ended in November, reports on wave flying activity in the West continued to come in during December. We have several excellent articles, news on the 1970 Nationals, and on medical examinations for glider pilots.

S.A.C. NEWS

The twenty fifth annual meeting of the Association will be held on 21st March, 1970, in Montreal. The meeting will take place at the Mount Royal Hotel in downtown Montreal. It is hoped to make S.A.C.'s 25th anniversary a special occasion. Limited accommodation in private homes is offered to delegates by M.S.C. members. Requests for accommodation should be addressed to Montreal Soaring Council, P.O. Box 1082, St. Laurent, Montreal 379, P.Q.

1970 CANADIAN NATIONAL CHAMPIONSHIPS

Tentative operating rules have been submitted to Wolf Mix, Chairman of the S.A.C. Championships Committee. Proposed rule changes are that the Contest Director plus two competing pilots will form the Contest Committee. The organisers propose that these two competing pilots be appointed by the Contest Director.

Three classes are proposed: Open, Team and Sports Class, scoring for the last being determined by handicap factors.

In the Open class, a 2-1-0 scoring system is proposed (see SAILPLANE and GLIDING Feb-March 1969). This system awards 2 points for each competitor beaten, one for each competitor tied with, and 0 points for the rest. (We suggest that these proposals be thoroughly studied by all interested parties and their S.A.C. delegate briefed so that the matter can be voted on at the March 21st S.A.C. meeting. Ed.)

FITNESS AND AMATEUR SPORT GRANT

In view of the letter from the Minister of Health advising that S.A.C. is unlikely to be allocated a grant in 1970 under the above programme, further representation to the Minister will be made on behalf of S.A.C.

The grant for travelling expenses to competitors who attended the 1969 National Soaring Competition has now come through.

1970 NATIONALS

On 30th October 1969, the Manitoba Soaring Council met to discuss arrangements. In the light of reports submitted by contestants and crew members of the 1969 Nationals, the following points were made:

I ACCOMMODATION: There exist two adjacent complexes situated $\frac{1}{2}$ mile north of the operations site:

- a) one Hotel, one Motor-Hotel and one Motel. Their facilities will be rated and the information handed to all participants so that they may reserve exactly what they need in advance.
- b) a nature-park/camping grounds/swimming pool/golf course/trailer park complex. Except for the trailer park, these grounds were recently fitted up for some of the Pan American Games athletes. They include flush-toilets and showers. One area in the complex has now been chosen for the trailer park where Manitoba Hydro has agreed to install power and the Town will install the sewer systems. This complex is managed by the Town of Carman.

II COMMUNICATIONS: Manitoba Telephone Systems has accepted to install 4 telephone lines.

III MEALS: Restaurants and Cafés will be rated and the information passed on to all participants. Two concessions will be operated on site from about 10 - 11 A.M. to supper time, one for the participants and one for the public. They will provide anything from cold drinks and sandwiches up to hot soups and hamburgers. Hearty breakfasts can be had in town at one or two restaurants, depending on the demand, which we will arrange to open early for that purpose. These field concessions will be managed by the Kinsmen Club.

IV ROAD SIGNALS & PUBLICITY: The Championships Committee has formally applied for promotional funds from the "Sports 70" Committee of the Manitoba Centennial Corporation, upon the invitation of the Manitoba Government. This project will be explained to you as soon as it is approved. In the meantime the Town of Carman has already lined up its streets with "Soar to 70" signs and is about to install fixed and moving billboards for local publicity at the Nationals.

Several other items also needing attention were discussed:

The North-South runways and strips are all 3,200' long. Bob Boyle, your 1970 Operations Officer, is planning a 150' take-off runway, 100' taxi strip, 200' towplane landing strip, 300' sailplane landing strip, a 150' crew and tie-down strip and, separated by a snow fence, a 150' public strip.

Negotiations are now going on for the use of the biggest hangar (I don't know its exact size but if 7 or 8 contestants wanted to do some work on their gliders at the same time, it could very easily accommodate them). There is power, excellent lighting, and His and Hers flush toilets. This hangar is where the briefings will take place. Carman's request for Rothman of Canada's "jumbo" air conditioned trailer and P.A. system has been well received and will serve as the administration center. This is where the 4 telephone lines will be connected. The Company will confirm no less than 90 days prior to the contest.

We have formally approached the Air Cadet League in the hope of obtaining the valuable assistance of 30 to 40 Senior Air Cadets. Our proposal was well received. The Town of Carman has already earmarked a renovated Bank building, with adequate facilities, for their quarters. Details of the arrangement will be given as soon as it becomes official.

Preliminary investigations regarding U.S. landings were made by Dave Tustin of the Rules & Regulations Committee. Formal arrangements will be made soon in consultation with Terry Beasley.

As all participants will be sleeping $\frac{1}{2}$ mile from the operations site, arrangements are being made to have two night watchmen on duty every night from 11 P.M. to 7 A.M. The Town sirens will be switched on in a certain fashion to warn pilots and crews of a potentially dangerous weather system.

Prince Philip, the Duke of Edinburgh, will be in Manitoba during July 1970 and we have decided to invite him to "drop in" for a semi-formal visit in the course of the Championships.

The Manitoba Centennial Corporation has already committed a substantial sum for the closing banquet.

This is, in a nutshell, what went on at our 4th General Meeting. Several smaller meetings have been held, particularly by the Rules & Regulations and the Task-setting Committees, and many other meetings with associations and Government bodies. We've been at it since February 1969 and little by little everything is falling into its rightful place thanks to an excellent participation and cooperation. Those glider pilots who cannot compete but who do not want to miss these Centennial Championships along with the many other Manitoba Centennial Celebrations, and make their 1970 holidays in our Province, are invited to get in touch with us.

All those from Canada and the U.S.A. who have questions to be answered on the 1970 Nationals, address your queries to the following:

THE XXII CANADIAN NATIONAL GLIDING CHAMPIONSHIPS
P.O. BOX 184, STATION "C", WINNIPEG, MANITOBA

PLAN NOW FOR THE 1970 NATIONALS!

Franck Pellerin,
Chairman & Contest Manager

GLIDER PILOT MEDICAL REQUIREMENT

The Department of Transport has for some time considered certain changes in respect to the licencing of Glider Pilots. These changes are to the physical fitness requirements for obtaining a Student Glider Pilot Permit and Glider Pilot Licence and were submitted to our Association for consideration and comment.

The consensus of opinion among the Board of Directors and indeed many Glider Pilots, with whom I had the opportunity to discuss this proposal, was overwhelmingly in favour of having some form of a medical examination for Glider Pilots.

The Department of Transport was informed accordingly and we have now been advised that the proposal submitted to us is being adopted. This Proposal reads as follows:

"An applicant shall have submitted a report of medical examination conducted by a Department of Transport designated medical-examiner in accordance with the physical standards for Civil Aviation personnel licensing. An applicant who is assessed fit to hold a Private or higher type of pilot licence may be issued a Glider Pilot licence. An applicant who is assessed unfit to hold a Private or higher type of pilot licence may, contingent upon the medical condition effecting the unfitness, be issued a Glider Pilot licence, not valid for the carriage of passengers.

Glider Pilot licences will normally be issued for a five year period. During this period a Glider Pilot licence holder shall notify the Department of Transport of any acquired medical condition which may warrant a restriction against carrying passengers being entered on his licence. Further, the holder of a restricted Glider licence may submit a report of medical examination and/or such specialists reports as required in order to have the passenger carrying restriction removed from his licence."

The administrative changes necessary are listed below for your information:

1. Applicants for issue of a Student Glider Pilot Permit or Glider Pilot licence must comply with this requirement effective November 5th, 1969;
2. The holder of a Student Glider Pilot permit must comply with this requirement on expiry of his permit or by May 1st, 1970, whichever occurs first;
3. The holder of a Glider Pilot licence must comply with this requirement by May 1st, 1970; and
4. Student Glider Pilot permits and Glider Pilot licences will normally be issued for a five year period.

As you can see these changes are of some importance to all of us, for this reason, please study them carefully and make the necessary arrangements to comply with the new requirements so that your licence will continue to be in order.

Paul Thomsen,
President, S.A.C.

CANADIAN TEAM FOR 1970 WORLD CONTEST

The result of a ballot amongst pilots eligible* to represent Canada at Marfa has resulted in the following rating list:

- | | | |
|--------------|-----------------|-------------------|
| 1. C. Yeates | 5. W. Deleurant | 9. D. Marsden |
| 2. D. Webb | 6. R. Cook | 10. G. Lockhard |
| 3. J. Firth | 7. P. Trounce | 11. P. Mortensen |
| 4. W. Mix | 8. R. Mamini | 12. A. Boudreault |

The first four pilots on the list have indicated their desire to fly, and will therefore be the Canadian team. We understand Yeates will fly a Standard Libelle, Webb a Kestrel, Firth an HP-11A and Mix a Standard Cirrus.

(*Basically those pilots who (a) have placed in the first 3 positions of the last 3 Canadian Nationals or (b) were entrants in the previous two World Championships or the first four pilots seeded for such; or (c) have won the Canadair Trophy during the 3 preceding years (Best Five Flights); or (d) were nominated for cause by S.A.C. Directors or by pilots qualified under (a) or (b) above.)

WORLD CONTEST RAFFLE SCHEME

We would like to remind our readers to press on regardless with the sale of these tickets, particularly as S.A.C. is unlikely to obtain a Government grant in 1970. Ticket stubs and cheques (made out to S.A.C.) should reach Don Wood, 216 Monterey Drive, Ottawa 6, Ont. not later than 28th February, 1970.

R.C.F.C.A.

While at Fort William on business in September, Paul Thomsen attended the 40th annual meeting of the Royal Canadian Flying Clubs Association, at which he was elected a director of R.C.F.C.A. Paul says that, in recognition of the significance of the Soaring Association, a new class of associate membership was established for our affiliation with R.C.F.C.A.

F.A.I. A W A R D S

Approvals for applications received during September, October and November, 1969:

Diamond Badge:

J. Firth	HP-11A	G.G.C.
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Silver Badge:

K.J. Round	Foka	G.G.C.
D. Gyorffy	1-26	S.O.S.A.
P.T. Coleridge	Skylark 3b	G.G.C.

Diamond Badge Legs:

J.M. Reid	(Goal)	1-23H15	R.D.S.A.
A.M. Pow	(Alt.)	1-26	M.S.C.
J. Bisscheroux	(Alt.)	Skylark 2b	M.S.C.

Gold Badge Legs:

G. Geyer-Doersch	(Alt.)	Ka-8	M.S.C.
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Silver Badge Legs:

A. Sawatzky	(Alt.)	1-26	W.G.C.
J.M. Meredith	(Alt.)	Ka-7	W.G.C.
C.P. Trent	(Alt.)	1-26	M.S.C.
R. Steimer	(Alt.)	Skylark 4	M.S.C.
R.W. Schaubert	(Alt/Dur.)	1-26	S.O.S.A.
J.C. Bruner	(Dur.)	1-23D	C.O.S.A.
R.G. Doult	(Dur.)	1-26	T.S.C.

C L U B N E W S

C.V.V. APPALACHIEN, SHERBROOKE, QUEBEC

Well, our first season could have been worse. After more than a year of preparation, we finally got our derrières into the air. We started flying on June 4, after meticulously following all the regulations in the book, like painting 1 ft. high registration letters on the new Bergfalke and checking the A.S.I. in the windtunnel. The first three starts with the winch gave me a bit of a scare and I remember asking myself why the hell we had started all that. Now we have a bunch of winch operators that can pull you up at a constant 55 mph no matter where the wind comes from. Training of these fellows by the old trial and error method was, we think, no minor achievement. I am going to sneakily feed you bit by bit the reasons why we are as proud as you can find us presently. Well, everything was going all right with an occasional cable break until this lousy dustdevil threw our nice plane over the nose on the back. We couldn't have prevented it. We were all sitting around the plane at the time munching on our lunch, windward wing down, brakes out and all that. Two or three of us jumped up and grabbed the Berg, Denis Lambert was

actually lifted up with it and had to let go. Anyway, it took us five weeks to fix the ship again and about an acre of plexiglas to blow a halfway decent canopy. This happened in July, just about after we had congratulated ourselves for being over the hill, after 172 training flights of the short (winch) variety. The ship is not at all limp after this accident, it still flies you in style, we even gave it a new coat of paint.

Now you are ready for the statistics. Until November 16, we collected the impressive total of 396 flights with just this one ship. Max. altitude was 1300 ft. with 4000 ft. of cable and a 3000 ft. runway, average release altitude 920 ft. The total mileage is 396×2.5 , not at all impressive, nor is the average flying time which I don't even want to mention. I knew how to fly all right, but in six years I had flown a circuit every once in a while, no thermalling, and that didn't do too much for my performance. And then: we wanted to keep the Club together and give as many fellows as many flights per day as possible, because the seasons are rather short around here and we are 30 in Sherbrooke.

So we had started with 30 members, 23 ab initio, 2 with around 12 flights logged. Now: we still have 30 members, only two ab initio, 3 with their 'B', 3 more who are going solo this year with or without snow, and one instructor. For us, it's good. We don't feel like fledglings any more and you can be sure we are going to show off next year. Plans for that coming season: purchase of a nice single-seater (second hand), if possible a Ka-8 or a 1-26. We keep looking around for a new field of our own and, of course, a towplane. We feel good in spite of all the trials and tribulations, we think we have made it, and I, personally, am very proud to see that we have now at least 10 fellows who are really enthusiastic about soaring. Thanks to all of you who helped nurse us along, especially to you people from the Montreal Soaring Council and from the Quebec Soaring Club.

Wolf D. Seufert

MONTREAL SOARING COUNCIL

Operations came to a close on the November 22-23rd weekend. Flying at the Lake Placid wave site closed the previous weekend when Jim Henry in Supercub KLL towed Hillar Kurlents in the Club Blanik up to the St. Hubert airport to clear Customs and on to Hawkesbury. One of the Club's 1-26's and the Canadair 2-32 were also brought home, by trailer.

A few days later a sudden windstorm hit the Lake Placid airfield and managed to loosen the tail tie-down of a private Blanik, and succeeded in turning it tail over nose, with the wings still firmly tied down. The aircraft is considered a write-off. The owners, Messrs. Cooper, Payne, Pearson, Schneider, Sunderland and Swettenham at least have the soaring season behind them.

Labour Day weekend visit to the Quebec Gliding Club, St. Raymond (G. Nye)
Somewhat enthused by our visit of last year, Fred Cooper and I tried to

drum up a little interest amongst a few other MSC members to make a return trip this year. We didn't have too much success but managed to make it a foursome at the last minute. Norm and Rosemary Swettenham plus sons (let's not forget the dog) left Friday night with their housetrailer and were solidly entrenched in the friendly atmosphere at QGC by the time Fred, Sybil (Cooper), Joan (Nye) and I arrived the following day, just before noon. We left at 6.30 a.m. (ugh!) in order to beat the heavy morning traffic. However, going was slow during the first hour due to heavy ground fog. After stopping for coffee about half way, we settled in and burned up the remaining miles to St. Raymond in good time.

Great cheers went up as we turned into the entrance to the gliding field. It was nice renewing old acquaintances and nice to be back in such scenic country. In many ways St. Raymond reminds one of a small mountain hamlet nestled snugly in a valley. Fairly large hills rise to the north of the field, which lies on a plateau, and the village is about 1½ miles to the west and at a lower level. The view from the air is quite breathtaking and one has no difficulty at 3,000 ft. in making out the St. Lawrence river which is about 20 miles away. The field itself is fairly long - 4,000ft. - and also quite wide. There is a take-off path and a landing path so that the general operations of aircraft and sailplanes do not interfere with each other. There is no clubhouse at this time and the hangar for the Austers consists of an old converted barn. QGC is considering construction of the above in the near future. As for the sailplanes, there are T-hangars. By MSC standards QGC may be lacking in some facilities but they make up for it in enthusiasm. The club fleet consists of 2 Austers - for towing, 1 Ka6CR, 1 2-33, 1 LK-10A and 1 1-26. Private ships are - 1 Blanik, 1 Ka6E and 1 Cherokee. An HP-14 is under construction and nearing completion. As a note of interest, QGC received their 2-33 at the end of July 1968 and finished the season with over 500 flights. This year they expect to make it 700! How's that for utilization? After a round of back slapping and hand shaking, we thought it time to rig the sailplanes and went to it with a vengeance.

Okay! Sailplanes rigged - a clear sky - let's go up and see what's perking. No need for a number. Just line up behind the other 2 ships and a tow should be along shortly. Time passes rather quickly and suddenly you're next. The Auster taxis into position and the towrope is hooked up. Thumbs up and ready to go. The take-off is smooth and uneventful and once again your eyes are greeted by a panorama of rolling hills, lush farmlands, countless lakes and rivers and "YES" at 2,000' I think I can just make out the field (8 miles away) where Fred and Pierre Rochette made their unexpected cross country landing last year. Well, it's time to bid farewell to my friend in the Auster and the release snaps back with a satisfying thump. A turn to the right and I'm on my own. Plenty of sink around so I start searching fast. The altimeter alarmingly (so it seems) creeps back to 1400 ft. and it's time to start thinking of heading for the field but - OOPS - what is this? 2, 4, 6 knots up on the vario! Centering is not too difficult and in about 5 minutes I'm back to 3700'. I also note that everyone else is on the ground by now and consider myself fortunate to have latched on to something so good. The

vario starts fluctuating between 2 and 3 metres up and I begin to think that either there is something better in this thermal or it is petering out. Throwing caution to the winds I try to sniff out better lift and WHAM - I'm out of it. From here on in it's down all the way. Base leg finds you close to the north hill and the trees look gigantic to anyone who makes his first landing at the St. Raymond field. However, no sweat, there is plenty of altitude to spare and the landing is routine. Later in the afternoon, Cliff Sunderland shows up and once again there is plenty of back slapping and hand shaking going on. The day passes rather quickly and sunset finds us staking down our aircraft for the night.

Next morning finds the weather unfavourable, with heavy fog slowly giving way to thick haze which persists most of the day. Oh well, tomorrow may be better. Monday a.m. starts with a bang - beautiful sunshine and clear. But, by 11 o'clock an overcast has developed and it looks like another disappointing day. We assure each other that in our sport one has to expect and accept such eventualities and perhaps things will be better the next time. So, with this in mind we de-rig our sailplanes and prepare for the journey home.

Our heartfelt thanks to all the gang at QGC, notably, Claude Rousseau, Maurice Laviolette, Fabien Caron, Dan Lizotte, Pierre Rochette, Keith Park and many others whose names escape me at this time. We enjoyed our stay very much and found the atmosphere and friendliness most invigorating. Keep up the good work fellows and rest assured we'll be back again next year. We hope that some of you can visit us at MSC one of these days.

Gerry Nye

GATINEAU GLIDING CLUB (From the Gatineau Glider, Dec. 1969):

Annual General Meeting: This was held on November 29th. The reports of the various club officers were presented and the members elected as the 1970 Board of Directors are as follows:

Jim Laing
Glen Lockhard
Larry Rowan
Elvie Smith
Don Wood

Accounts:

Our liquid assets should be enough to complete payment on the new ASK-13, the order has been confirmed and a deposit of \$600 paid. It is, however, extremely important that all outstanding flying accounts be paid as soon as possible to provide the necessary cash balance to purchase the aircraft.

Hangar Break-ins: The hangar at Pendleton is obviously becoming known as an easy place to break into; we suffered another burglary recently with the loss of some aircraft spares (Citabria & Chipmunk). To guard against further attempts and to catch any intruders, a comprehensive alarm system has been set up. For security reasons the details of this will not be revealed but anyone wanting to get into the hangar this winter should consult the Directors first.

P.T. Coleridge,
(Editor)

SOUTHERN ONTARIO SOARING ASSOCIATION (From S.O.S.A. News, November 1969):

The year saw many changes at Rockton. The animal farm - a mixed blessing as it turns out. An increase, certainly, in the number of people expressing an interest in gliding. An increase, equally certain, in the fingerprints on canopies, the children to be watched, and the growing layer of dust blown from the side road.

Whatever the season gave us in airtime, it was equalled or more by ground time activity. The diagonal runway has been virtually completed. Seeding was done by a team of members, spaced across the runway, walking slowly & scattering handfuls into the wind. The seed took root, and already a blanket of green has appeared. The new, new runway, the "cross" runway (named after the wind) is taking shape. It may take another season of working, disking, rolling before it is ready for other than emergency use. But it's there, and getting closer to completion with every pass of the earthmover, every heave by hand of a Rockton boulder.

Whatever the season gave to each of us personally, it was fittingly celebrated at the SOSA SHINDIG on October 4th. The official reason for the party was the paying-off of one of our two land mortgages. But unofficially, we would have had the SHINDIG anyway. Just about everybody came, and, it seems, everybody had a joyous time.

INP (1-26 Ed.)

We're happy to say that good ol' INP has been bought by Max Harris. Max is looking forward to a busy winter of rebuilding.

Gordon MacDonald,
Editor

YORK SOARING ASSOCIATION

Summary of Flying Statistics for 1969:

Gliders	Club	4
	Private	0
No. of Flights		224
No. of Hours		87
Cross Country		0
Aero-tows	Aircraft	1
	Tows	224
Winch or Car Launches		0
No. Students D.O.T. License		1

The amount of flying is lower than usual for the Club because of the time spent in getting our own field set up (runways, hangar construction, etc.).

Fred Balchunas

PIONEER SOARING LTD:

I just returned from the Schweizer Annual Dealer meeting and the only good news is that the 1-34 is in production, at last, and ship No. 5 was delivered while I was there. I flew the prototype but it is

difficult to make an assessment from one flight. From my brief acquaintance with it it seemed to be viceless, it was pleasant to fly, it had a roomy cockpit with seat back adjustment, seat front adjustment and rudder pedal adjustment along with an adjustable headrest. Visibility was good with no noticeable distortion. The dive brakes are effective and speed limiting, and the wheel brake is hydraulically operated from the spoiler lever.

The performance is of the order of 35.5-1 and the minimum sink about 2.0 fps. A retractable version will be available and a Diamant style canopy will be an option. Development will be continued to produce 17 and 19-metre versions. The production of all months up to June 70 has already been sold. (Ships will be available before this time as dealers have placed stock orders.. We, for instance, have orders for two and only one will be used in the School). The price will be \$6,995 U.S. f.o.b. factory.

The 1-26 will remain in the D configuration, the only change will be in the wing rivetting. Flush rivetting will be deleted to give a smoother, overall surface. The dimpling of the skins for flush rivetting causes oil-canning of the surfaces. The performance loss due to the protruding rivets has been more than made up for by the improved skin profile.

The other item of interest is the possible production of a towplane, using components from their current production. Production is a year away, if it is decided to go ahead, design is for a 4-place, high wing, all-metal, tailwheel type aircraft, with a rate of climb of the order of 1,000 fpm with a loaded 2-32. Turn-around time to be in less than 4 mins! What they are aiming to produce is an a/c with the cost of the Super Cub and the durability of the Cessna 180. Cost is projected to be \$12-\$14,000 depending upon the engine.

Deryck A. Brown

CU-NIM, CALGARY:

We have had a really exceptional Fall and early Winter here in Alberta, with practically no snow yet, and mild temperatures. This has resulted in many good wave days, the only difficulty being getting enough people to go to Pincher Creek to crew. The most active pilots have been Andre Dumestre, Dick Mamini and George Blunden, and I couldn't even guess how many hours they have put in over 15,000 ft., or how many feet total they have gained. George did mention to me that he followed the wave along the mountain almost to Exshaw (100 plus miles), but then was turned back by cloud and low oxygen. On the return he covered 100 miles in 23 mins.! George has laid out an excellent 500 km dog-leg course, to use wave lift only, and is just waiting for Spring.

George Dunbar

From CU-NIM club news: (Dick Mamini)

On November 8th I made a wave flight from Pincher Creek north along the Rockies about three ridges west of the Livingstone Range. The flight was made at 19,000 plus or minus 200 ft. without making a single turn un-

til impending sunset forced me to start the return trip to Pincher Creek. The 150 miles covered was limited only due to my late take off. The next day George Blunden (Cirrus) and Andre Dumestre (Libelle) declared Diamond Goal and Return flights to Exshaw and Bragg Creek respectively and although they both covered the distance easily, neither was able to photograph his turn point due to cloud cover or the fact the turn point was too far downwind from the wave. Climbs to 29,000 ft. were made this day but there was too much moisture in the air and windshield icing and poor visibility made navigation a problem. One pilot overflowed Pincher Creek to Waterton Lake and then couldn't quite make it back to the airport against a strong northerly component. Complimentary steaks were heartily enjoyed by the retrieve crew. I headed north again the next day but because of a strong northerly component it took three hours to get to a point west of Plateau Mtn. and only twenty minutes to get back to the vicinity of Pincher Creek.

Dick Mamini

INUVIK, N.W.T.

One of Alberta's soaring pioneers, R.B. Woslying, missing in the Arctic for nearly three weeks, was in hospital recently after walking into an oil exploration camp about 45 miles Northwest of Inuvik. He was described as being in surprisingly good condition, though he was suffering from frozen feet and a cut face. Temperatures in the Inuvik area had dropped as low as 41 degrees below zero during the previous three weeks.

Mr. Woslying, a married man with two children in school at Lethbridge, disappeared on November 2nd in a light aircraft while on a trip to Inuvik from Fort Good Hope, 200 miles to the South. He walked into the camp only a few hours after Canadian Forces search aircraft had given him up for dead. He carried survival gear, including a sleeping bag. An employee of Northern Canada Power Commission, Mr. Woslying had landed his aircraft in the MacKenzie River delta area.

EDMONTON SOARING CLUB

From the December "Towline", retiring president Harry Byrt reviewing 1969 and looking forward to 1970; said the Club's greatest success had been the ability to attract a number of new and substantial people. "These enthusiastic new members must be considered our greatest accomplishment and most valuable asset." As in most clubs, there were those who were not pulling their weight. "While our strength is in quality of people, so is our weakness."

"At our next meeting we elect a new executive. Their success cannot be accomplished without cooperation and help from every member. Our club has got the background, the people, the experience, and a good start on the equipment to move ahead into the greatest soaring movement in Canada. We can buy land, build airstrips, build clubhouses with swimming pools - but it requires work and sacrifice on a grand scale. It is there for the taking, if you want it badly enough".

Harry F. Byrt

For the Club's raffle scheme, a total of 128 books were sold, resulting in a net profit of \$502. Ed Dumas sold the most tickets, 21 books of them.

The Cliff Hall Fledgling Trophy, awarded to a student for flying proficiency and club support during the year, went to Ed Dumas.

The annual banquet was attended by 60 members and guests.

Glider purchase: Gordon Prest, Chairman of a glider purchase committee, has located a suitable training glider. The Club President has authorised purchase of the aircraft if conditions are favourable.

1969 Flying Statistics (Club and Private aircraft):

<u>Aircraft</u>	<u>Hours</u>		<u>Flights</u>		<u>X-country miles</u>	
	<u>1969</u>	<u>1968</u>	<u>1969</u>	<u>1968</u>	<u>1969</u>	<u>1968</u>
TG-2	153.06	130	620	498	-	-
1-23	108.27	100	249	180	738	500
Blanik	65.32	100	148	210	317	270
TG-1	27.13	-	82	-	-	-
HP-11	41.26	51	30	27	662	923
HP-14	55.26	46	26	28	1,455	870
2-22	1.36	-	8	-	-	-
Others	5.27	-	21	-	-	-
	<u>428.93</u>	<u>427</u>	<u>1,176</u>	<u>943</u>	<u>3,172</u>	<u>2,563</u>

There were 16 "A" badges, 3 "B's", and 4 "C's" earned, one 5 hours duration, one Silver "C" distance, one Gold "C" completed. Don Wolski and Bill Dupont made a new Canadian dual flight distance record - 211.7 miles, from Cooking Lake to North Battleford, but the claim was not made within eight hours of completion and was not recognised as such.

VANCOUVER SOARING ASSOCIATION

Editor Vic Shobridge is turning out some meaty editions of the Vancouver Soaring Scene. This is the type of communication which builds up spirit in a club, so the outlook is encouraging for V.S.A. in 1970. There is even a proposed calendar of events for 1970 which lists activities up to October, starting with the Club's A.G.M. on January 26th; a costume ball in February, displays at shopping centres in February and March, and so on.

President's Message

With the 1969 flying season over, there is more time to reflect on our Club's past performance. Statistics tell us that we have had a most successful year, both in membership and total flying times, regardless of the unfortunate loss of a valued member and a club glider. At present, negotiations are well under way, and possibly, by the time this is published, we will have Hope Airport.

The question is, where do we go from here? 1970 is going to bring with it

added responsibilities, not only towards the club, but to the general aviation public as well. This will mean to each club member, hopefully, only a small increase in the workload. Plans have tentatively been prepared, to convert the office building at Hope into a Clubhouse, and, although most of the major maintenance work of the Airport will be contracted out, there still will be a few jobs that have to be done by club members. In this way, we will be able to cut expenses.

Both club gliders have come through the season in excellent condition, with only minor work required on each of them. The K8 is at present undergoing a complete check, and will be given a Weight and Balance before being put back in service in the Spring. The 2-22, presently stored at Hope, will be brought in sometime in January, all necessary work (mostly fabric damage) will be done to it. The point to keep in mind is, that any work you are called upon to do, is a direct benefit to the Club, and if we all share the load, we will be able to accomplish many things at a minimum cost.

At present, the club has five Directors, a C.F.I. and an Editor for our new publication. Each of the abovementioned should have at least one assistant, and in some cases, committees should be formed to assist in the administration of the Club. As you all know, nominations are open for the five positions as Directors and I urge all of you, who feel you can contribute, to place your name on the ballot, or, if you would like to serve on a committee, please let any of the Directors know.

Recommendations for Constitutional Changes: The following motions will be forthcoming at the Annual General Meeting, and are open for discussion by the members at the November General Meeting:

Changes to the Constitution:

Para. 5 - Membership

A voting member is a member that has paid initiation fee and membership dues.

Membership dues of the Vancouver Soaring Association to be raised from twenty-five dollars to forty dollars per year.

General

Initiation fee - whereas, presently practised, an initiation fee of fifty dollars is now charged, and a further sum of fifty dollars is now levied in order that the member is allowed to fly the club's single seater (commonly called the K8 fee) - the Initiation fee be the sum of one hundred dollars.

Flying Statistics for 1969

<u>Aircraft</u>	<u>Hours</u>	<u>Flights</u>
2-22	137.00	1,017
K-8	202.40	238
1-26's (2)	67.30	212
	<u>407.10</u>	<u>1,467</u>

Vic Shobridge, Editor

THOUGHTS ON THE 2-1-0 SCORING SYSTEM

We took the trouble to rework the results of the first ten contestants in the 1969 U.S. National Competition (SOARING September 1969). The results make surprising changes:

<u>Pilot</u>	<u>Contest pts.</u>	<u>Contest Place</u>	<u>2-1-0 pts.</u>	<u>2-1-0 Place</u>
Moffat	7,413	1	1,212	1
Scott	7,321	2	1,123	5
Brittingham	7,073	3	1,088	7
Allemann	7,063	4	1,105	6
Mears	7,014	5	1,133	4
Briegleb	6,986	6	1,143	3
Smith	6,976	7	1,156	2
Wroblewski	6,621	8	860	10
Seamans	6,558	9	951	9
Wodl	6,547	10	982	8

On the last day, under 2-1-0, Allemann would only receive 74 points (45.7 per cent) of the winner's 162 points. Under the existing system he received 74.9 per cent.

Wroblewski, under 2-1-0, only receives 63 points (38.9 per cent) for his 50th position on the 5th (area distance) day, when he made 380.5 miles. Under 2-1-0 his score was substantially reduced because many pilots made a slightly better distance, with 13 pilots making 393.5 miles, 8 making 395.5 miles, and 2 making 399.0 miles. Under the existing scoring system Wroblewski received 78.9 per cent of the winner's score.

One of the detrimental factors under the 2-1-0 system is that a number of pilots making the same distance will drastically reduce their score as compared to the existing system. In the U.S. Nationals, on the 5th day, there were 13 pilots who came 29th, and on the 7th day, 11 pilots came 10th. Under 2-1-0, the 13 pilots would receive 30.86 per cent of the winner's score as against 81.6 per cent, and the 11 pilots would receive 77.3 per cent as against 82.8 per cent by the existing scoring system.

It should be borne in mind that the first ten contestants completed all of the closed course tasks.

The 2-1-0 system imposes no penalty on pilots who do not complete these tasks. In order to reward pilots who do complete closed course tasks, the system will have to be modified, and can then no longer claim to be a simple system. Again, the score is based on the number of pilots beaten and bears no direct relationship to the actual distance covered or speed achieved. This would not do for world competition, when pilots come in within 30 seconds of each other.

The 1969 Canadian National results would also result in some changes if the 2-1-0 system had been used:

<u>Pilot</u>	<u>Contest pts.</u>	<u>Contest place</u>	<u>2-1-0 pts.</u>	<u>2-1-0 place</u>
Webb	3,862	1	171	1
Moore	3,506	2	153	2
Deleurant	3,140	3	123	4
Cook	3,013	4	109	8
Mamini	2,924	5	95	12
Firth	2,888	6	134	3
Marsden	2,846	7	98	11
Stoten	2,644	8	118	6
Gairns	2,603	9	114	7
Herold	2,576	10	120	5
Kovacs)	2,548	11	107	9
Chabot)				
Palfreeman)	2,536	12	107	9
Kurlents)				

R.C.G.

THE SB-7 (CF-WOV) ... (D. Webb)

People who have visited Hawkesbury during the Fall may have noticed a thin-winged fibreglass machine, looking somewhat akin to the Diamant, perched on the flight line. The aircraft is a derivative of the German SB-7 developed by the Braunschweig University during the early sixties. The prototype flew in the 1963 World Championships in Argentina where it caused quite a sensation. Unfortunately this prototype used the same wing section from the root to the tip of the wing and had some extremely bad tip stalling characteristics which made it spin rather viciously. Because of this and its smaller span, its slow speed performance in that configuration was rather poor and it did not perform well in the contest.

The plans for this machine were made available some time later, and I believe this is still the only fibreglass machine for which the drawings can be bought, and for which the construction is suitable for home building. The aircraft is built from the inside out in contrast to most other fibreglass aircraft and thus no expensive molds are required. The basic shell of the aircraft is made from balsa wood and then overlaid with fibreglass. Ewald Kostolnik of our Club obtained these plans and began to build the fuselage many years ago. However, Joe Mandla soon took over the project and during the past four years has spent most of his spare time and a tremendous amount of energy in getting it to the flying stage.

Joe did not merely build a direct copy of the original SB-7, but tried to improve the design to eliminate the low speed problems of the prototype. Naturally enough this led to a somewhat larger span and a change in the wing tip section. The span is now 16.5 meters and the tip section starts to change from the original Eppler 306 airfoil approximately 12 feet from the wing tip. The tip section is now a modified Jukowsky 12% section (it might almost be called a Mandla section) and there is the straight line transition from one section to the other over these 12 feet of span. This increase of span of course, required the spar to be beefed up at the root and increased the wing area from 127 sq.ft. to 139 sq.ft. The wing loading is now 5.4 lbs/sq.ft. with a 200 lb. pilot. Joe also raised the

height of the cockpit section approximately 2 inches at the rear end of the canopy to gain a little more space for the pilot, since this is a very tight cockpit.

I became interested in this aircraft about a month or two before the Canadian Nationals when it became evident that the Kestrel which I was expecting would not be available for the contest. At that time Joe casually mentioned that his SB-7 was almost ready to fly and would be available if it could be finished in time, and if I would care to test fly it and check its suitability. A final drive was made to complete the aircraft before the Nationals, helped somewhat by Albie Pow, and to a small degree, yours truly. However, the machine wasn't ready for flight until just after the contest dates. Joe and Peder Mortensen made two hops to a height of 5 ft. or so behind a car at St. Jean's Airport whilst I was away at the Nationals. However, the first real flight was conducted at Hawkesbury on July 27th after much tailoring of the cockpit controls to suit my proportions. Due to the haze and lack of a suitable parachute this flight was originally going to be a hop, but since the aircraft handled well just above the ground, I thought I'd make a quick circuit & then wait for more suitable conditions to give the aircraft more of a work out.

The second flight was a tow to 5,000 ft. on the evening of August 9th. The basic handling characteristics were assessed qualitatively. Approaches to the stall and speeds between stall and 85 mph were tried. A considerable number of turns were made at various speeds for control coordination and initial control force assessment. The aircraft had quite a good rate of roll at slow speeds due to the extended ailerons on the 16.5 metre wing. However, the all flying tail made the pitch control extremely sensitive & this control will require an anti-balance tab to make it fully acceptable. (As an interim measure a spring trim system has since been installed). It was interesting to discover that one could tell fairly well how the tip modification was affecting the span loading at the various speeds by watching the wings bend to suit the applied aerodynamic loads. At slow speeds, the wing obtained a pronounced elliptical dihedral, although not an excessive amount for this type of thin wing. At high speed (up to 105 mph so far) the wing tends to flatten out as expected as the tips unload. Due to the different wing tip sections, the wing has a built in aerodynamic twist which seems to be enough to avoid the previous tip problems, but not too much to destroy the high speed performance.

Having found that the machine would fly and was controllable, some time has been spent getting familiar with it in relatively calm conditions and during this time it has been possible to compare the straight glide performance of the machine against the Diamant 16.5, the Cirrus and the immaculate Chabot/Kovacs Austria SHK. The glides with the Diamant and Cirrus were more or less accidental, but seemed to indicate that the SB-7 had exceptional and superior penetration at around the 70 mph mark in comparison with these aircraft.

Henri Chabot, who has been in contact with the project for some time, was willing to do some comparative glide tests in calm air and a series of runs were conducted in the early morning and late evening against the SHK

at speeds between 50 and 100 mph. Radio contact between the gliders, keeping as close as possible (say 50 ft. apart) throughout the tests and runs of 6 to 7 miles minimized any errors. The SHK, as previously stated is in beautiful condition and in good contest trim, whereas the SB-7 is, in fact, still rather "dirty". It has not even been sanded after application of a primary spray coat on the whole aircraft which was carried out in the open air in dusty conditions.

The results were more or less as expected, except for the middle range of the curve. At 50 mph the SHK has a slightly better minimum sink, at 65-75 mph the positions are completely reversed and the SHK seems to drop away from the SB-7 at a fairly pronounced rate. However, at speeds of 80-100 mph the machines' performance come very close together again. This effect is, I believe, partly due to the Eppler 306 wing section which has what amounts to a built in flap at the trailing edge with a permanent deflection of 5 to 7 degrees down. One wonders what would happen if a modification was made to put a plain flap on this part of the wing to allow it to move 5 degrees negative and thus even out the span loading a little at the higher speeds. It would appear that this modification might cause the superior penetration noticed in the 60-70 mph region to extend further up the speed range. A Schreder type flap going down 90 degrees for landing purposes would be a great improvement for cross country flying. This is a very tempting thought for future development because the dive brakes presently installed are completely ineffective in the approach speed range, and some additional drag device is definitely required as a landing aid. The Schreder type landing flap would be the best solution, if a satisfactory method of modifying the present wing can be determined. A tail parachute will be installed as an interim measure.

The most revealing investigation carried out so far has been the preliminary exploration of the low speed handling of the aircraft. The initial stall and spin checks (at the forward C.G.) carried out recently, indicate that the wing tip modification has been very successful from this aspect. The machine will not spin in this condition and the initial rotation, when forced, can be checked at any point with opposite rudder.

Summing up, it would seem that the machine shows that it has great potential and is one of the few homebuilt aircraft equal in performance to the latest factory produced fibreglass aircraft. Development into a practical contest machine still needs a number of minor modifications, plus at least one of the additional landing aids mentioned. This, of course, is completely normal with a development aircraft such as this. The aircraft reminds me very much of the BS-1 which I flew in Poland, but with the aircraft polar moved about 5 knots to the low end. The lower wing loading, span, and lack of negative flap account for this of course. It is not a beginner's aircraft, but with the bugs ironed out it could turn into a very fine aircraft. Its circling performance, although possibly very slightly inferior to the SHK at present, is still very good. Its penetration is excellent and it seems as if it is going to be fairly docile to fly.

I think that Joe Mandla and the people who helped at odd times during the basic construction of the aircraft, are to be congratulated on a

very fine job of work. Very few people, apart from those who have attempted similar tasks, really appreciate just how much work goes into a project like this, but the outstanding thing in this case is that Joe has not had any previous experience in this type of construction and learned it all the hard way. No doubt he was helped by the fact that he could obtain information from Germany through various sources and by going to see people whilst travelling, but the determination and effort required to finish such a project (and still remain on speaking terms with one's wife) is, to say the least, exceptional.

Happily Joe still seems to have the necessary drive to complete the modifications that will be necessary. I predict more will be heard about this aircraft in the competition field.

Dave Webb

JOURNEYS BY JULL

(This past summer, Norm Jull travelled extensively on business. Somehow, he managed to tuck in quite a bit of gliding. Here is Part I recounting some of his experiences.)

Thanks to the excuse of business, I went to Liberia and on to South Africa. It was winter there, with the thin-blooded residents wearing sweaters under heavy suits. (Meanwhile, I perspired in my light summer suit.) I dropped in at Rand Airport, one of several serving Johannesburg, and wrote an exam on Air Regs very much like ours. In Pretoria, 30 miles away, I got my licence validated in 15 minutes, which made me legal to rent power planes but which was not required for gliding. Planes cost about the same in South Africa as in Canada, the weather is better than we suffer here in the East, and flying seems to be every bit as widespread. It's a great way to see a new country.

I found the largest gliding group flew at Baragwanath Aerodrome as an affiliate of the Johannesburg Light Plane Club, thus enjoying a superb, well-staffed clubhouse with bar, good dining room and huge lounge with fireplace, all inside a completely encircling verandah. That equipment does a lot for club spirit I can tell you! I had my check ride in a Kranich and then, while the rest complained about the skinny thermals, I had a happy afternoon in their K8. I thought it was like good average conditions at Rockton. Needless to say I went out there as often as I could.

Club members Jackson, Beatty and Dommissie were at Marfa and the people who were especially kind to me included Tim Biggs, Bobby Clifford, Brian Stevens and Joss Stewart, though I'm failing to record a great many more names of friendly gliding enthusiasts who made me welcome. Tim and Bobby took me to lunch one day and then to the Beatty brush-handle factory to view the BJ Mk. 2 under construction. This is a sturdy ship, metal primary structure with FRP aerodynamic shells slipped over it; Fowler flaps with a thin plate in the lower wing surface which "oilcans" out to restore the profile when the flap moves out! The ailerons and rudder are set out behind the airfoils of the wing and fin respectively, so the

latter have complete profiles back to the trailing edges, without control surfaces set into cutouts as is usually done. This is hoped to give a slotted effect to aileron and rudder, but Klaus Holighaus and Rudolf Kaiser both gave me the opinion later (when I saw them in Germany) that, due to altered Reynolds numbers, total drag would prove to be higher.

Ailerons droop with flaps through an ingenious mechanism which does not disturb the entirely separate aileron control system at all, but merely lengthens the pushrods. (When I later flew the Diamant 18 at the factory in Switzerland, I was cautioned against using full flap for landing, since aileron control would be nearly eliminated). The Beatty-Johl team is an interesting one, especially since Johl lives several hundred miles away & contributes his design ideas by correspondence. Pat has a partner who runs the brush-handle production, turning them out by the thousands, so Pat can apparently devote much time to the more important work in the back shop! He also had half a dozen young men working on the ship while he was away in Texas. In my opinion it could never be an economic production design, but it is certainly a handmade wonder! You can dig out more of the background detail from the May '68 Soaring.

They do a lot of gliding in Rhodesia, but I had to avoid that country in order to be an acceptable visitor to Zambia where most of the copper mines are. I wasn't in Zambia long enough to find time for gliding. I went on to Paris for the weekend which happened to include Bastille Day. The military parade down the Champs Elysee was impressive, especially the jets overhead spewing red, white, and blue smoke.

In Switzerland I already had my licence validations by mail so I flew a couple of days at Samaden near St. Moritz, using a K7. On the second day I was flying the ridges for some time with others including a nice ASK13, the first I had seen. Ten minutes after I landed, a K6 landed with the report that the 13 had crashed! There it was, visible high above the field, with no wires or other unusual hazards and, so far as I learned, no other glider near it. Hikers later reported seeing it spin in, doing 2 to 3 turns, and it went onto its back, breaking up and killing both German visitors in it. The pilot was said by the field manager to be competent and to have flown there before. Certainly he was flying normally during the time I had been with him on the ridge. A week later I was in Germany and spoke with Rudy Kaiser and Werner Schleicher. Neither had heard of the accident, but they were understandably upset by the spin report. I'm afraid I couldn't draw any useful conclusion from what we saw and heard.

I eventually reached Altenrhein, in the northeast of Switzerland, and visited the Diamant factory. This large factory is equipped mainly for jet fighter manufacture and they are very keen on their new Bravo 2-seat piston trainer which will compete with the Beagle Pup and Bulldog, and with Bölkow's Monsun.

We rigged an 18 into which they bravely inserted me (Swiss courtesy, and insurance policies no doubt, know no bounds!). Sadly, due to the adjacent Bodensee, there was nothing but stability so I towed to 1000 metres and took a nice long time sinking back in the lovely sleek thing. I'm not a qualified test pilot so I'll simply say I could find nothing about its handling I didn't drool over, while agreeing with some critics that there

are roomier and handier cockpits around. Oh yes, and the mainwheel is too far back. I couldn't use much wheelbrake without nosediving, and since I thought it would be discourteous to scrape the new fibreglass I took a long ground run, which fortunately was available.

I should also mention trying the usual experiment with negative flaps: I kept my protruding feet at the same point on the horizon while moving the flap lever smoothly to negative. I felt no obvious sink, the air-speed needle turned clockwise as if directly connected to the flap handle, and the vario needle went down appropriately. That's all there was to observe, no noise or other sensation of speed! What a way to drive a glider!

We de-rigged and drank beer in the nice Company restaurant under the trees. I very much liked their trailer-dolly idea: in effect the lower inside of the trailer pulls out and can be easily handled around the field on its own wheels. The glider is very easily mounted onto it because of the complete access all the way around and, if desired, the whole thing just rolls into the main trailer. They merely parked the ship, on the dolly, on the field "as is". It could be great for hangaring at a club since rigging is so quick, yet the wide road trailer could still stay outside.

Despite this glowing report, my private opinion is that there will be no further production of the Diamant. At the factory I did see a pair of metal wings which they described as "research activity", and about 8 unfinished FRP fuselages headed for the paint shop. I saw no FRP work in progress.

I wanted to visit Schänis, southeast from Zurich, but time ran out. I was told that it is a commercial operation, ideal for visitors, and is called Alpine Segelflugschule, 8718 Schänis.

I stole four days to visit five glider factories in Germany, which I'll try to describe for the next issue.

Norm Jull

A C C I D E N T S & I N C I D E N T S

Alf Schmied's death on September 28, 1969, while attempting to parachute from his disabled HP-14 has been a great shock and loss to all who knew him. Alf was relatively new to the Cu-Nim Club having moved to Calgary from Vancouver in 1967, however, he quickly become one of the most enthusiastic members of our club. He flew his KA6 at every opportunity, organized worthwhile club projects such as recovering the Bergfalke fuselage and in 1969 acted as C.F.I. The terrific effort Alf put into finishing his HP-14 was an accomplishment for which he will always be remembered and admired.

Flying conditions were very turbulent at Pincher Creek on the day of the accident with surface winds E. 10-15, winds aloft W. 15-20 and a strong shear evident at about the 2,000 foot level. Alf arrived at the field rather late in the day and was not ready to be towed aloft until about 3:30 p.m. The tow was quite short and upon landing the tow pilot ex-

pressed concern because the HP-14 had been badly out of position and he had almost been forced to release him when the HP let go at approx. 1000 ft. Because of the towpilot's concern, several witnesses including the tow pilot, were carefully watching the HP-14 which had now climbed to an estimated 2,000 ft.

The aircraft suddenly started spinning from what appeared to be level flight (two of the witnesses I talked to thought the aircraft was inverted and one thought it was spinning upright) it completed two or three turns, recovered, and then at an extremely high rate of speed, started a pull-up when at least one of the wings failed. Alf bailed out soon after the failure at an altitude estimated at around 500 feet, his chute streamed but he hit the ground before it fully opened.

The wreckage has compression failures on the lower surfaces of both wings which strongly indicates that the recovery was inverted and extensive torsional damage suggests the aircraft was well above placard speed. There is indisputable evidence that during the bunt manoeuvre the wings actually clapped together on the belly side of the aircraft; the wings cut into one another near the aileron root. The main failure to the right wing was about two feet out from the fuselage side and the left wing failure was about eight feet out.

Factors which may have contributed to the accident are as follows:

- (1) The wing span of the HP-14 had been increased to 18m which, of course, reduced the ultimate 'g' capacity and also may have had an effect on the stability.
- (2) Ailerons were unbalanced.
- (3) The aircraft was on its fifth flight, but the fourth flight had been made two or three months earlier in the late spring.
- (4) Alf had been vacationing in Europe most of the summer and had not done much flying.
- (5) Probably the most important factor was the extremely turbulent weather conditions.

Dick Mamini

WORLD COMPETITION CREWS

Terry Beasley, Director in charge of World Contest arrangements, wishes to have names of volunteers to act as crew members for Canadian Team pilots at Marfa. Volunteers should state their capabilities and experience; membership in S.A.C. desirable. Address correspondence to: T.R. Beasley, 173 Leslie, Dollard Des Ormeaux, Roxboro 970, P.Q.

HELP WANTED

Mr. Fred Fowler, of 50 Ravenscliff Court, St. John, N.B., is hoping to start a gliding club. A qualified Instructor and Towpilot are needed.

FOR SALE

LK10A - CF-ZBI, Serial No. 31. Fuselage rebuilt during the 1968 winter, new ceconite fabric, new control cables, new plexiglass, new instrument panels, wings have 5 year old Grade A cotton. It has yellow wings and international orange fuselage, a C. of A. and is ready to fly. With trailer \$2,500. Contact: Quebec Soaring Club, P.O. Box 276, Quebec 10. (Pierre Rochette: telephone 651-2939)