Free Flight

CHRISTMAS, 1955

60¢

FREE FLIGHT

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36 Westover Hill Road, Toronto 10, Ontario, Canada

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Cover Pictures

FRONT: The Orlik, made famous by Paul MacCready and now owned by George Lambros, provides the foreground for some typical Californian soaring scenery at Elsinore Gliderport. Every form of soaring is available: thermal, ridge, mountain wave, shear line. Other attractions include (l. to r.) Carolyn Sears, Jerry Matthew, Mary Hudson.

BACK: *(read in horizontal rows from top left)* 1) Jack Ames, National Champ, and 1-23. *2)* Bob Smith and 1-23D. *3)* Joe Perrucci and 1-26. *4)* "Made for each other" – Vince Redfern and The Battleship. *5)* Stan Rys and MU-13. *6)* "That's fine!" – Charlie Yeates and flattop LK. *7)* "Mix-up" – Wolf Mix mixes it with "Ze Tig-air" while Michel Malagies waits and waits and waits... *8)* Stan Smith and DC-3...er, 1-21. *9)* Lee Bernardis and the Loudon. *10)* Gatineau Gliding Club's famous Olympia – Pete Shaw up. *11)* Der Doppelraab von Aero Club Harmonie.

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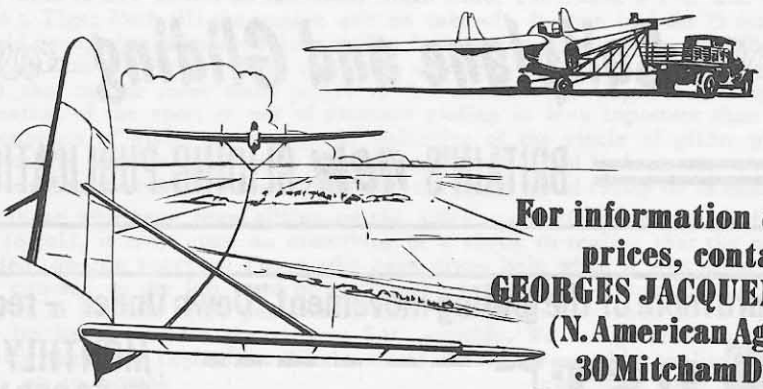

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*ULTIMATE LOAD FACTOR = 12

For this Christmas issue, we had prepared a whacking great three-page editorial underlining our need for more subscribers and more contributors and setting forth the aims of Free Flight. However, as contributions dribbled in, editorial columns were whittled down to one page and, faced with the problem of putting three in one, we scrapped the three-page job and are now sorting through the scraps. Maybe we had better start with the most important item:

The 1956 World Gliding Championships will be held at St. Yan, France. This is disturbing news. St. Yan is on the *other* side of Paris, which means many contestants may never reach the contest site. For those who do, the French have very kindly offered us Canadians the use of *four* sailplanes during the comps. Qualified pilots (i.e., with Silver C) who are able to spare the time (three or four weeks) and the money (your guess) are invited to send in their applications *now* so that a team may be selected and entered at the earliest moment. Frank Brame reports that the World Contest Fund has already opened with a donation of $25 from the Regina Gliding and Soaring Club. This is a great start, and other clubs are urged to follow suit; if unable to make a straightforward donation, why not turn in the proceeds of a Christmas party, dance, bingo session, bank robbery, etc? In 1955, Canada chalked up her first two Gold C's. It's time we showed the rest of the world what we can do in international competition. We *must* take advantage of France's generous offer by fielding the strongest possible team. We *must* support our team — still unchosen — to the limit of our financial ability, and we *must* start *NOW*, so that, when the time comes to open our official fund-raising campaign, we may have solid proof of our determination to put up a good show in this hard-fought international contest. In short, we must handle this thing with energy and enthusiasm such that any industrial concern will be happy to help out when asked to do so.

Several letters were received for which there was no space in the correspondence columns:

1) From London, England, a British insurance company writes regarding the high premium rates required to cover personal accident risks for Canadian glider pilots. A specimen quotation, based on annual flying time of 25 hours, sets premiums at from $25 to $35 per annum for a coverage of $10,000. Full accident cover including gliding risks (but excluding power flying,) would cost about $50 — a lower rate than Canadian insurance companies are quoting for gliding accidents alone.

2) From Trois-Rivieres, Quebec, Al Johnson sends four pages of news which arrived too late for inclusion in this issue. Briefly, the newly formed St. Maurice Gliding Club is now known as the RCAF Aero Club. They have a P-R and a 1-19 and had a Tiger Moth till the engine quit on take-off. It spun in from 75 feet. Pilot Bill Reid escaped with minor injuries. The P-R, on tow at the time, landed safely.

3) From Ottawa, Barrie Jeffery turns in a shortie:

"Of the two or three main points in the article "The Unpowered Sailplane," the question of the sport or not of powered gliding is less important than that of the economics of glider clubs and the enlarging of the circle of glider pilots to include others besides *aficionados*. If the energies of a Ted Nelson were channeled in to producing the cheap, fast-climbing tug, the clubs could really be in business."

To those who have been sitting on the sidelines confidently waiting for Free Flight to fold, it may come as something of a shock to realize that the magazine is headed towards success. Those who have given help when it was most needed can be counted on the left hand of a circular saw operator. Subscriptions are now coming in at the rate of 35 per month, and Free Flight may soon be in a position to pay for itself, without the present SAC subsidy. We are pleased to announce that with the New Year, Free Flight starts regular bi-monthly publication, to be stepped up to monthly as soon as finances permit. Publication date will be the tenth day of the second month. Deadline for the Jan.-Feb. issue is January 15.

To provide cash-in-hand to start the New Year right, we're offering Christmas gift subscriptions at a reduced rate: two for $5.25, three for $6.75. A new subscriber may include his own subscription; present subscribers are entitled to one extra gift subscription for $1.75, two for $3.25. Since all SAC members may be considered "subscribers," they are included in the latter deal. Fill out the application form (see end-sheets) and mail on or before December 31, 1955.

A Merry Christmas to all friends of soaring, and Happy Landings in 1956.

NEWS FROM THE CLUBS

BUCKINGHAM GLIDING CLUB — Quebec

Sunday, September 25th, has gone into the records of the Buckingham Gliding Club as another successful Air Show Day.

It was a fine sunny day, a little chilly from a spectator's standpoint, but the quality of the performance made up for this drawback.

By two o'clock a fair sized crowd had gathered at the Airport for the show and the air rides were well under way. These were provided by two 2-seater Aeroncas from the Ottawa Flying Club.

Two visiting aircraft were also on the runways, namely Mr. Sylvain's four seater Cessna from St. Hyacinth, and a Globe Airways two seater piloted by G. Hurtubise from Papineauville, a former member of the Buckingham Club.

The compliment of aircraft was made up of the Club's Moth towplane and its three gliders, the 2-22, the 1-19 and the 1-20 all of Schweizer design.

Mr. Moise D'Aoust was at the microphone and provided the spectators with information in both languages as the numbers on the programme came up. Russ Stephenson was co-ordinating the various phases of the Show with the help of Guy Joyce and Brother Hormidas and Alfred Wayman handled the air and ground traffic.

The opening number was a fine exhibition of difficult flying done with the Moth. The pilot was Russ Lightbody from the Canadair Gliding Club, a well known Moth pilot among glider circles. This was followed by the parachute jump executed by a seventeen year old pilot from Sherbrooke, J. S. Page.

This being his first jump, he received his final instructions from J. Codère, also of Sherbrooke, and then flew up to 1,200 feet. A slight miscalculation of the of the direction and strength of the upper level winds brought him to a landing in the bush; on his second jump at the end of the Show, he made the needed corrections and settled on the field from a height of well over 2,000 feet.

A glider tow followed when Norman Pelton towed Brother Hormidas in the 1-20 up to 1,800 feet and following the release he made off for Pendleton to bring back the high performance Olympia for acrobatics.

The 1-20 climbed on its own to 2,500 feet and half an hour later settled down at take off point.

By this time the Ottawa Flying Club's Chipmunk had arrived and a series of manoeuvers of a highly professional level were exhibited with this aircraft at low altitude. The performance shown in their execution reveals the high performance ability of this type of aircraft and also the degree of proficiency of its Ottawa pilot and instructor, Bill Curran. It is an unusual treat to see at such close range well rendered loops, chandelles, snap rolls, vertical reversements and roll on top of loop.

This beautiful number was followed by another unusual one when the Olympia arrived over the field at the height of 3,600 feet and began its downward trip in a succession of loops, wing overs, stall and high speed passes. One wondered which to admire most, the ship's silvery white sun lit appearance or its elegant silent playfulness in the blue sea above. Its able pilot Elvie Smith was much applauded.

Then all attention was drawn towards the centre of the runway where a miniature aircraft with havoc raising engine was repeating the aerobatics of its senior folks. Mr. Ed. Shane and Junior were flying their power model and in their hands it appeared that this hobby requires a high degree of skilfullness and is worthy of any ambitious youngster in learning the secrets of aviation.

The last item on the programme included a demonstration of ground tow technique in the early stage of pilot instruction. Four local students about to be soloed took part in this number. They were Guy Lacasse, Raymond Bastien, Roger Fortin and Philippe Larouche.

By 5:35 p.m. all visitors had disappeared in the blue sky and the little Airport settled down with the hangar doors closed and the spectators had wended their way to their homes.

The Club rejoiced in the fact that another Air Show had been successfully completed.

From the Buckingham "Post", September 30, 1955 BROTHER HORMISDAS

GATINEAU GLIDING CLUB — Ontario

Our members enjoy the sport at Pendleton Airport, approximately forty miles east of Ottawa. On weekends, we invade the airport about 10:30 A.M. after an hour's drive, although the few who come from Montreal must drive at least another hour. Soon after arrival, we push aside the hangar doors and roll out our fleet. First and foremost comes our Moth, a nervous chassis that gulps gas and oil as though they were made for each other. Soon to follow are a yellow Pratt-Read, a red, cream and silver Grunau, a cream Olympia and a double-bubble flattop LK painted aluminum and completed this spring. First flight of the day will be about 11:30, and as many as 27 more will follow.

This year's flights (as of November 1) can be illustrated thus:

Machine	*No. of Flights*	*Total Time (Hrs.)*	*Average Time (Mins.)*
Moth	494	88.38	10.73
P-R	212	67.72	19.17
Grunau	99	40.00	24.24
LK.	97	32.62	20.18
Olympia	60	47.42	47.42 *

Barrie Jeffery and the Olympia got together for the best flight of the year when they did the impossible and gathered up Canada's No. 1 Gold C and Diamond. This proves that skilled pilots need no longer travel west to gain such awards. Elvie Smith's 135 mile effort in May was runner-up for the outstanding flight. Elvie also made an international flight to Potsdam, N.Y., and was the first GGC member to earn his I-LIKE-IKE button. Only one Silver C could be scrounged from the clouds this year and Elvie did that.

The music is not yet over, but Monsieur Prang seems unlikely to bash at our door this year. We've had our moments, nevertheless. For the fourth flight of the year, Eric Wimberley and myself piled in to the Pratt-Read and followed the tow-plane in the normal fashion. However, while only 90 feet over the trees at the far end of the runway, the tow ring (glider end) snapped, and away we went. We cleared one fence and settled in a farmer's mud-bath, avoiding any damage whatsoever. Last month, the Grunau was landed on a hidden cow skull and sustained a few Marciano-sized fist-holes in the underside of the fuselage. Shorty Boudreault walked over and remarked casually "I understand there's some skull-duggery going on around here!" The machine was fixed, but Shorty hasn't yet recovered.

We will definitely have one or two more gliders next year. The workshop is pounding out a Pratt-Read and, although it's a big job, it may fly next year. Certain to fly is another Grunau Baby; the wings and tail unit are finished. Leo Smith is de-crashing the fuselage, and he hopes to outwit the termites before the end of November. The Olympia will be refinished after the Grunau moves out. Thus, the famous glider will no longer have to hide its skin from the critical eyes of our Sunday visitors. A Fauvel AV.36 will be started this winter by Leo Smith, and if one judges by his work on the Grunau, one may assume that Leo will waste no time and will end up with a well-built machine. The year 1955 was a good year for the GGC, and the year 1956 should be just that much better.

* *including four cross-country flights.*

BRIAN RUSK

RED DEER SOARING ASSOCIATION — Alberta

RDSA members witnessed a long awaited event at Netook Air Field 28 miles south of Red Deer on Saturday, August 20, as Norm Bruce, club CFI, pulled back on the stick to lift the Kirby Cadet in to the air for its first test flight. On hand were the Association's officers: Kerry Bissell (president), Art Underwood (vice president), and W. A. McKinnon (secretary-treasurer.) Other members watched with anxious eyes as the glider took off along the runway. The aircraft's performance exceeded the expectations of both test pilot and club members.

Norm Bruce of Calgary is a veteran of powerless flight in Canada, having spent more than twenty-two years both building and flying gliders. His quiet, good-humored manner has won him the staunch support of all club members, and his experience has been invaluable. All club members are registered members of the SAC, and the monthly arrival of FREE FLIGHT is enjoyed by all.

J. H. McKINNON

TORONTO GLIDING CLUB — Ontario

Brantford might well be called "The Soaring Capital of Canada" after a year's operation filled with success in all aspects of soaring. The number of gliders at the field has increased from the original five in May, when the gliding club moved to its new site, to twelve now actively flying. Two towplanes are regularly available and each weekend's flying now takes on the proportions of a National Meet.

The advantages of the agreement reached between the Toronto Gliding Club and the Brant-Norfolk Flying Club this spring are now very apparent. Under the agreement, all TGC members joined the Flying Club at $15 per year and were to enjoy all the privileges of the latter as well as those offered by the gliding club. The gliders are now rolled fully assembled in to the hangar after the day's activities, a far cry from the previous year's experience of disassembling gliders outside in the dark. In addition, hangar rental is unbelievably low, particularly when divided among the twelve gliders stored there (the problem of getting the twelve gliders in the space provided is not always solved in five minutes, however!)

Those staying the weekend then retire to the club lounge, where those unfortunate souls who landed short of the runway during the day do the honors with a round of ale. No evening is complete without a spaghetti dinner at Angelo's in Brantford, followed by John Shantz's or Eric Best's latest movie in the lounge. Bunks, with blankets and pillows, are provided on the airport at a nominal fee for those staying over, with heat and hot water supplied. Fast becoming a regular event at Brantford is the party sponsored jointly by the Gliding and Flying Clubs in the club lounge on a Saturday night about once a month. A dinner is arranged by some club member (a task at which Zoltan Oszter is becoming famous far and wide for his specialty of Hungarian goulash) following which drinking, dancing and general relaxation are enjoyed by all, to the accompaniment of Ken Larmour on the piano. The popularity of these social events is growing and is a good sign for closer contact between glider and power types.

The club has run up an impressive total of flying hours this year, over 700 as of the middle of October and promising to break 850 before the end of the season. The bunny-nose LK (CF-ZBA), backbone of the club, has this year broken all previous records to set a new high of over 200 hours, mostly on instructional flights. About ten more students have soloed this year, promising a good season in 1956. More and more club members have been buying their own gliders, with two more being added to the fold this year, making a total of four privately-owned machines now operating with us.

Other clubs operating at Brantford are the Hamilton Gliding Club with their TG-3 and the London Soaring Club, who are now sharing the ownership of their 2-22 with the TGC. The Aero Club Harmonie has also based its two new gliders (Bergfalke and Doppelraab) at Brantford while certification and flight tests are being carried out by Jack Ames. Only an hour-and-a-half's drive from Toronto, and centrally located for all of Southern Ontario, Brantford, with its hangars and dual runways, has indeed been a fortunate choice for the gliding clubs in this area. One can look forward to a healthy growth of Canadian soaring with ideal conditions such as these to encourage it.

FRANK WOODWARD

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On Saturday morning of Labor Day weekend, two quiet gentlemen from Canada unobtrusively arrived at El Mirage, California. Amid the scurry created by the conclusion of the SCSA Contest, they made arrangements to do some soaring. In routine fashion, Frank Brame of the Toronto Gliding Club checked out in the Cinema and, after the contest gliders were all in the air, he proceeded to establish a new Canadian National Altitude gain record of 12,615 feet.

On Sunday, Stan Harper, also from Toronto, and Frank flew to a new two-place Canadian national altitude gain record of 11,111 feet. Actually, this flight topped 18,000 feet before leaving the thermal while still going up at 600 fpm. Both flights were accomplished without oxygen. Unfortunately the barograph performed faultily during the two-place flight and stopped recording at 3600 meters. Congratulations are proffered to Frank Brame and Stan Harper, and a hearty wish that they and all of our Canadian soaring friends will feel welcome and anxious to visit El Mirage whenever they can. From *The Thermal*, September, 1955

QUEBEC SOARING CLUB — Quebec

We have not done an excessive amount of flying this year; expected total—around one hundred flights. The main reason for this is that we started late as we had to recover our P-R. This machine was subsequently sold to the newly formed ST. MAURICE GLIDING CLUB in Three Rivers, P.Q., where it is doing yeoman service. Second reason: we did not get our new Tiger Moth until the end of April and then had bad weather. Finally, our club is still young and we do not have many active members yet. On the other hand, we consider our operations this year were an outstanding success; our financial tide has turned and the future of the club seems assured. Our membership list is growing and flying time has steadily increased during the summer.

What little flying there was turned out successfully. Competent pilots, including A. W. Krieger, Bob Ford (from England) and Mario Overhoff have made flights of several hours duration, reaching altitudes between five and eight thousand feet. We are slowly convincing the local peasantry (power pilots) that an engine serves a useful purpose only in emergencies (excluding the services of Tiger Moths, etc.) Aerobatics have also been proved possible, much to the surprise of said local peasantry. Much has been learned about certain neighboring fields.... On many occasions we inspected the interior of clouds, to find them resembling very closely the interiors of clouds found elsewhere. We have not yet been able to study waves in our vicinity, but this will come.

The Air-100 was brought up here in August. It successfully withstood the 2000 mile trip through thick and thin — searing sun, hurricanes, thunderstorms with 80 mph winds, tourists, and Sunday drivers with no injury except to our nerves. The ship looks beautiful and according to the published data it should have excellent performance.

ALEC KRIEGER — MARIO OVERHOFF

ARCTIC GLIDING CLUB — North West Territories

We have no equipment yet, but spirits are high ($10 per bottle.) Club membership is mostly Eskimo and Indian with a stiff sprinkling of Canadians and a sprinkling of stiff Europeans, including two drunken Swedes, Bjorn Thursti and Lars Shantz. We were joined recently by a renegade American, believed to be on the lam from a Southern California glider club for non-payment of dues. He claims many flights in the Bishop wave. His name is Len Ticula. Whenever the Eskimo and Indian members get together, a fight breaks out, and when the rest of us try to figure out who is to stop the fight, another fight breaks out. This sort of thing keeps membership low and members high.

The Indians have a word for "glider." It goes on for a long, long time, sounds like stones being rattled in a tin can, and, literally translated, means "The-Great-White-Bird-That-Soars-Like-A-Great-White-Bird." One of the Indians, a widely-traveled youngster by the name of Little Loose Goose, has heard of Al Pow. Asked what he thought of Albie's wonderful 256-mile flight in the Lawrence, his face brightened from its usual sour expression and he replied, monosyllabically, *"Pow? Wow!"* Asked about Albie's *last* flight in the Lawrence, his face resumed its usual sour expression and he replied, monosyllabically, *"Ugh!"*

In the absence of any gliding activity, a hockey game, Esks versus Reds, was staged on a day when the temperature rose to a muggy thirty below. The Esks were armed with hooch bottles, whaling knives and whale bones. The Reds were armed with hooch bottles, hunting knives and moose bones. It was quite a scrap. In the best traditions of Canadian hockey, rules were ignored and fights were frequent. Early in the game, during a goalmouth melee, the referee was struck by a whale vertebra and will be buried as soon as he can be shipped south. The bone was thrown by Roquette, the Fierce Frenchman, who is said to have caused a riot the last time he played in Montreal. This probably explains why he is now playing in the Arctic League. It's lucky for Roquette that no trees grow up here in the Arctic, or he would have been suspended immediately.

Between periods, "liquid" refreshment was served: rum cubes and cracked Coke or whiskey blocks and crushed Crush. (Man, that Crush is *cool*....) The game ended in a scoreless tie, and a replay has been arranged for New Year's Day. This will be a sudden-death final for the Gray Owl Cup.

DANGEROUS DAN

NEWS FROM THE U.S.A.

NORTHWESTERN MICHIGAN SOARING CLUB — Michigan

The Frankfort-Elberta Glider Meet was held September 23-24-25. The first sign of activity was the arrival at the Frankfort Airport Thursday afternoon of the Vultures' 2-22 which was aero-towed the 200 miles from Detroit behind the 1-5. Doc Selvidge, who flew the glider the last leg, cut loose over the ridge at Elberta, but found no lift and shortly landed at the airport after sightseeing over the towns. The rest of the gliders were arriving at all hours during the night.

On Friday, the wind was from the east, which was no good for ridge-soaring, but there was some sign of thermal activity. Every one stayed around the airport, using winch tows – with the spot landing contest getting its share of attention. Mahoney had the best duration of the day with 30 minutes, and Bob Kellner, with five inches, led the spot landing contest. That night there was a chicken dinner at the Park Hotel, attended by 55 persons.

During the night a low pressure trough went through, bringing a wind shift to NW and giving promise of good ridge conditions. Zada Price and Ray Jackson took the Cinema over to explore Elberta, but found the wind too much out of the north for good soaring so they were soon down. Dick Schrader reconnoitered the Crystal Downs ridge with his Bonanza and rushed back to get a tow over there in his Bowlus. He was followed about an hour later by Ray Jackson in the 1-23. A group under John Nowak was inspecting the Crystal Downs Beach, rolling away a few logs and marking a big OK on the best landing strip. Flying went on at the airport all day, with Kemp Trager showing the boys how to work weak thermals in the T-3. His best flight was 52 minutes.

Meanwhile, the boys on the ridge were grinding away. In spite of the company of several eagles, the lift was inclined to be spotty and light, and it took fairly steady concentration to stay up. In the middle of the afternoon, Chuck Hauke tried it in his TG-2, but was unable to work the ridge with as much clearance as he liked, so he landed at Sutter's pasture after about 30 minutes. At 3:30 P.M. Doc came in to Sutter's after having been up 5:30, thus finishing his Silver C requirements. Ray landed shortly after for 7:05, his longest duration flight. Dick was still up, and was shortly joined by the other Bowlus. They landed at dark, Dick having been up 10:07. This is the longest flight that has been made at Frankfort in many years. Slim Joost in the other Bowlus was up 3:38.

Saturday night, everyone went to the Big Fish Dinner at the Elberta Beach. The weather was fine, the food tasty, the bonfire warm, and the singing...well, enthusiastic. So a good time was had by all.

The Meet Safety Committee made very sure that all new pilots were thoroughly briefed on the problems of ridge soaring in that vicinity, and there were no untoward incidents on the ridges. Unfortunately, the meet was marred by an accident that could have happened (but shouldn't) at any airport. In the face of a fairly strong wind, a 1-19 came in short and struck the Vultures' 2-22 which was in position for take-off. Fortunately, no one was hurt, but the left wing of the 2-22 was almost a total loss.

From Bulletin No. 3 of the Michigan Soaring Association

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Rochester Soaring Club is based at Batavia, about halfway between Rochester and Buffalo, and is a very pleasant, relaxed and friendly organization. The club owns a TG-3 and a 2-22, and everyone takes turns flying them or taking instruction from their president, Ed Seymour, who is doing a marathon job on this score. Privately owned ships include a 1-26 and a P-R.

The field at Batavia lies on flat terrain, close to the Throughway, and has two long grass runways. The field is owned and operated by Gil Chapell who also owns and flies the towplane, a beautiful yellow and green Waco. Drawback: Mohawk and American Airlines fly the Throughway between Rochester and Buffalo at about 1000 feet and things have been known to get a bit tense. Disconcerting, being at 1500 feet, to see a Convair zoom by below you.

Wurtsboro Thermal, September, 1955 — GRETCHEN DAMBACH

MICHIGAN SOARING ASSOCIATION

Michigan

The newly formed Michigan Soaring Association is really getting the ball rolling here in Michigan as far as the sport of soaring is concerned. In the few months it has been operating, it has gotten many new people in to soaring, has sponsored a glider meet in Frankfort, and is sponsoring a banquet in honor of the new U.S. National Soaring Champion, Kemp Trager, on November 4. Several new clubs are being formed here, thanks to MSA. It also puts out a monthly bulletin on soaring activity in and around Michigan, which is sent to MSA members, seventy at present and growing every week.

Several good flights have been made by Vulture Soaring Club members from Detroit. Charles Hauke made a flight of 4:15 in his flattop TG-2 with a passenger; he plans on selling the ship this winter. Doc Selvidge, of Bendix Aviation Research, joined the Vultures this spring, soloed, bought a 1-26, and completed his Silver C requirements with a flight of 5:30 during the Frankfort Meet and a 70-mile cross-country flight up in to the "Thumb" of Michigan, all in a period of four months! Our club wants to sell our standard TG-2, which has just been recovered and relicensed, in order to get another 2-22 or maybe a 1-19 or the like.

In July, I made my C flight from a 600-foot winch tow. I caught a bit of zero sink and started circling. Slowly, very slowly, the needle of the Horn began to climb, and thirty minutes later, the 2-22 and I were at 3000 feet. I then lost it and was down to 1800 feet before I hit a little bump which turned out to be a thermal of 1.5 meters per second. Very soon, Chuck Hauke and his TG-2 were under me, but I kept at least 300 feet above him all the way to 3200 feet where I lost it again and began the last long glide to terra firma 1:25 after take-off. A reception committee was waiting to congratulate me on my first solo soaring flight.

I've been thinking of building an EPB-1A "Flying Plank" this winter. At first I wasn't sure I should even try, but then I read in *Free Flight* where lots of young kids are constructing different types of glider. This has encouraged me considerably, and I'm going to send for the plans in a week or so, as soon as I can get enough money from my paper route, which has financed my whole flying career so far!

BOB KELLNER

Ed. note: At fourteen, Bob Kellner is the youngest licensed glider pilot in North America.

NORTHERN CALIFORNIA SOARING ASSOCIATION

California

MINDEN SUMMARY: For those of NCSA who have not been able to get in on our activities at Minden, Nevada, here are a few facts to make mouths water, dreams of Gold & Diamond C's come alive, and little caches of envy refurbish their traditional color of emerald. Aye, lads, we've got it: the dream of glider gangs everywhere. This is the best soaring site we've ever hit, and we've hit a lot of 'em. We're just scratching the surface of Minden's potential, but already such things have happened: Rates of climb reported of up to 2000 fpm. Altitudes reached of 19,700 feet ASL (twice) entailing climbs of 14,000 feet. Two Gold C altitude legs made and a third missed by the old bugaboo – "forgot to turn on the barograph." Glenn Rogers, making Gold C gain in his PR, reached 18,000 feet with his barograph off, fought his way down to 6,500 feet ASL, turned on the instrument and returned to 18,300! Glenn made Silver C duration on this flight with well over the required five hours. So far, only two cross-country flights have been made, both a little disappointing. One for Glenn of 50 miles completed his Silver C; another of 60 miles was made by Vic Swierkowski in his LK. Vic claimed Gold C gain on this flight, reaching 19,700 feet.

We have learned that the area is no place for rank beginners. We should be equipped with oxygen systems for such conditions. Also, the country is rather sparse in off-the-field landing sites. So, we must be careful, though how one can miss his chosen landing site within a 75 mile radius with 16,000 feet between him and the ground is beyond our ken!

The additional attraction of Lake Tahoe (half hour drive away), High Sierra camping, hiking and fishing at Faith, Hope and Charity Valleys (40 minute drive to the south by slow bus) and Reno's many and diversified attractions (45 minute drive to the north) completes the picture of Minden.

SOUTH JERSEY SOARING SOCIETY — New Jersey

On Labor Day weekend, Otto Zauner took the 1-26 to Elmira for the 1-26 Regatta. Serving as crew were Helen and Chick Buscaglia, Mildred Reiman, and Art Heavener. This was the first contest ever held in which participants were required to use the same type sailplane. To further put the contest on the same level, a race horse start was used. All sailplanes crossed the starting line at the same time on a pre-arranged signal at an altitude between 500 and 2500 feet. Since a high had centered over the Elmira area for the two days of contest flying, triangular and rectangular courses were flown. Saturday's course was a triangular one covering about 42 miles. Otto came in first, followed by Don Pollard and Dave McNay.

On Saturday evening, the Schweizers were hosts at a picnic held at Harris Hill. This was followed by a meeting of all owners and prospective owners of 1-26's. The purpose was to start the organization of a 1-26 sailplane class similar to the organizations controlling sail-boating. Otto was elected or, more properly, drafted as the first president to serve for a temporary period of three months, or until the Snowbird Meet. Don Ryon of Rochester, N.Y. was elected secretary under the same conditions.

On Sunday, the task was a rectangular course of about 22 miles, twice around. Dave McNay came in first, followed by Don Pollard. This put Dave in first place, Don second, and Otto third. Bob Smith, flying his flattop LK, won the open class. The awards banquet was held Sunday night at Harris Hill, followed by an informal gathering in the Recreation Building. Movies were shown, as well as slides taken at the Internationals in England. Ernie Schweizer showed slides of the Bishop Wave Project, in which the 2-25 recently participated.

Had the weather been good on Labor Day, Otto planned to fly to South Jersey. Art Millay planned to try for the Philadelphia Glider Port. However, the weather had other plans...so we drove. All in all, we had a good time, with *no* retrieving!

SJSS "News" September 1955 — ART HEAVENER

FORT WAYNE SOARING COUNCIL — Indiana

The Fort Wayne group held a very successful Open House on Saturday and Sunday, October 8 and 9. Things were very quiet Saturday, with Ray Jackson's 1-23 being the only out-of-town ship in. Ray made a short cross-country flight to Lima, Ohio, about 50 miles. Sunday, things really started popping with the arrival of the Toledo Stearman with three gliders in tow, a Bowlus, a 2-22 and a Cinema. Larry Gehrlein arrived with his "Second Chance" and two towplanes were kept busy all day long. Thermals were marginal, so 40 to 50-minute flights were the order of the day. Eight gliders were in action during the week-end. There were large crowds of spectators on account of some good TV and newspaper coverage, and the whole operation at the Smith Airport was pronounced a great success by all the visitors.

From Bulletin No. 3 of the Michigan Soaring Association

CAPTAIN BARNABY ELECTED EARLY BIRD PRESIDENT

At their annual meeting held in Philadelphia during the National Air Show, the Early Birds elected Captain Ralph S. Barnaby, U.S. Navy (Retired), President. Captain Barnaby has been Early Bird First Vice-President for several years. Since his retirement from the Navy, he has been associated with The Franklin Institute Laboratories for Research and Development as head of their Aeronautics Section.

Early Bird membership is open to those people who flew solo before December 17, 1916. Captain Barnaby, who holds the first United States soaring certificate, qualified for membership by his glider flights starting in 1909. He is Vice-President of the Soaring Society of America. During the past three months he has been the recipient of the Paul Tissandier Diploma from the Federation Aeronautique Internationale and of a Helms Hall of Fame Award from the Helms Athletic Foundation for outstanding contributions to the sport of soaring in the United States.

September 9, 1955: *News Release* of the Franklin Institute, Philadelphia, Pa.

WORLD NEWS

AUSTRIA: The 1955 Austrian Soaring Championship was won by H. Resch of Zell am See. He flew a Scheibe L-Spatz. The sailplane designer H. Musger has designed a new one-place high performance sailplane, the MG-23. Built by Oberlerchner, already responsible for the two-place MG-19, the new sailplane promises to be a first class ship.

CZECHOSLOVAKIA: During the Czechoslovakian National Soaring Championships, J. Kumpost set a new national goal record with a distance of 327 miles. He also became the first Czech to complete Diamond C.

FRANCE: The French National Soaring Championships were held at St. Yan from June 28 to July 9. Twenty-three French glider pilots, flying Air-100's, fought for the title of National Champion. Two other Frenchmen, flying Breguet 901's, and one pilot each from Britain, Germany, Belgium, Holland, Denmark, Czechoslovakia and Switzerland also participated. To determine the French Champion, a rating was used in which only the 23 Air-100 pilots were taken in to account. A young pilot named Lacheny came first, followed by Pierre and Marchand. In the international rating, Dr. Frowein of Germany, flying an HKS, took first place ahead of the two Breguet 901 pilots, Lepanse and Landi. During the Championships, Commander Fonteilles set the first world record for speed over a distance of 200 kilometers with a time of 4:6'31". Though Lepanse set a better time (4:4'31"), he landed later and did not exceed Fonteilles' time by the necessary five percent.

GERMANY: A new German goal record was set by G. Raddatz, who flew 237 miles in about nine hours. Hanna Reitsch won the German National Championships held at Oerlinghausen. She flew a Scheibe Zugvogel and gained her title by the skin of her teeth, as Gerard Pierre was leading till the last day.

HOLLAND: Holland is buying ten Skylark II's from Slingsby's after the Dutch National Championships were won by Selen in this type of glider.

JUGOSLAVIA: The Sixth Jugoslav Soaring Championships were won by B. Komac in a Kosava, followed by Z. Rain, also in a Kosava. Philip Wills, flying a Weihe, finished thirteenth. The Championship was in the form of goal flights with a speed rating over six legs with a total distance of 900 km. (560 miles). A 100 km. triangular speed race was thrown in.

POLAND: Mme. Czmielowa set a new feminine world goal and return record with a flight of 208 miles in a Jaskolka. The previous record was held by Marcelle Choisnet of France. On June 22, Jerzy Woynar beat the world goal and return record recently broken by the French pilot Fonteilles. The new record stood at 480 km. (298 miles) till it was again broken by Lyle Maxey of the U.S.A. who flew from El Mirage to Independence, California and back (307 miles) in his Jennie-Mae.

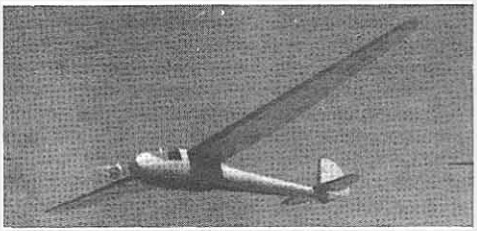
SWITZERLAND: A new high performance sailplane has been built in Switzerland, the Elfe PM.3, designed by Dr. W. Pfenninger, A. Markwalder and W. Nicole and built in 8000 hours by the sailplane constructor R. Sagesser. It took part in the French National Soaring Championships. It has a wingspan of 52½ feet, a wing area of 129 square feet, an aspect ratio of 19.2 and a wing loading of 6.87 lbs./sq. ft. The following performances were measured in flight:

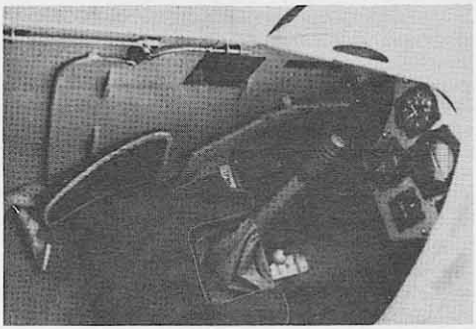
Speed (mph)	Sink (fps)	L/D
62.1	2.3	39.5:1
80.7	4.1	29.0:1

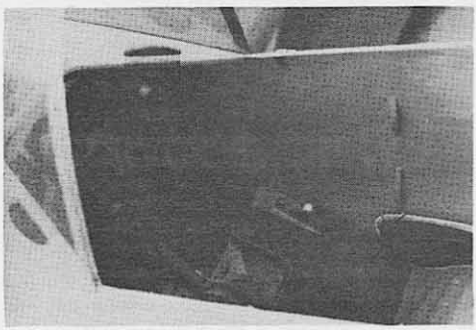
On April 15, Hans Nietlispach and Werner Schatzmann set a new Swiss two-place goal record by flying a Kranich II 217 miles from Berne to St. Gervais, France in 4½ hours for an average speed of 48.2 mph. Four days later, A. Kuhn and J. Strickler set a new Swiss duration record with a flight lasting 24:14. On July 6, Hans Nietlispach became the first Swiss pilot to complete Diamond C with a distance flight of 530 km. (329 miles) from Berne to Beziers, France.

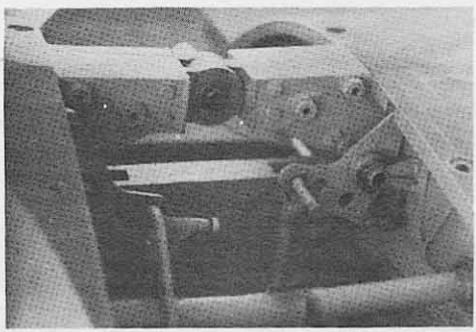
A SPANISH CREATION

by Walt H. Pratt









In a country where soaring is subsidized one hundred percent, it is rather surprising to find sailplanes of foreign origin only being used. But this is the case in Spain, where students begin their training in the SG, transfer to the Kranich II for dual instruction, solo in the Grunau Baby and, having gained their Silver C's, continue their flying in the Weihe, all German machines. The fact that these sailplanes are built under license in Spain does not appease Spanish soaring pilots who have long been clamoring for a purely Spanish sailplane comparable to those made abroad. One effort had already been made to provide them with a sailplane fashioned after Spanish ideas. But the Gurripato, as it was called, was intended only as a trainer and the need for a high performance sailplane remained unsatisfied. In the World Soaring Championships, Spain's best pilots had always competed with foreign machines, and they felt this to be unworthy of their country's soaring effort.

Senor D. Rafael Martinez de Pison y Nabot, Spain's General Director of Civil Aviation, agreed with their demands and asked aeronautical engineers D. Emilio Gil Cacho and D. Felipe Garcia-Ontiveros Herrera to study possibilities. The engineers, both veteran soaring pilots, showed great enthusiasm for this task, and through their whole-hearted efforts, the VC-101 became a reality in the workshops of the National Institute of Technical Aeronautics. Unsure of financial support, and having to combat the disinterest of the Spanish aviation industry for this field of aeronautics, they decided to stick as closely as possible to existing proved sailplane designs such as the Sky and the Air-100, bearing a close relationship to the Weihe, which, though conceived before 1939, still shows up remarkably

well among present day machines. Gil Cacho and Garcia-Ontiveros also started from the basic Weihe design, incorporating modifications deemed necessary by new ideas in sailplane construction. These included a higher wing loading to increase penetration, reduced aileron area to lessen induced drag, and increased cabin space leading to greater pilot comfort.

The wing has a rectangular planform with tapering tips. The span is 59 feet (18 m), aspect ratio is 19, wing area is 185 square feet and wing loading is 4.05 lbs./sq. ft. The wing is wooden, with a single D-nose spar reinforced in the rectangular section of the wing to give it a T shape. Spoilers are DFS-type with rod controls, and are more efficient than those of the Weihe. Aileron controls are differential; transmission is by cable in the wing, rod in the fuselage. The wings have a dihedral of 2°. Wing section varies from Gö 549 (root) to Gö 626 (tip). Washout is 6.2° and angle of incidence is 1.5°. The ailerons have a total area of 20 square feet and a total length of 12 feet. Their action is effective despite reduction in size, which gives better penetrating qualities and avoids "hardening" of the controls at high speed due to the installation of fewer aileron horns.

A dolphin shape has been selected for the fuselage. It is of semi-monocoque, wooden construction and has an oval section. The cockpit is remarkably spacious with a full-blown canopy. Rudder controls are the pedal type and are adjustable. The most noteworthy innovation is the canopy, shaped to run smoothly from nose to wing with a removable section consisting merely of a sheet of plexi which fits in to the fuselage at the wing-roots and is held in place by a lever inside the cabin. This lever is controlled by a knob and cable. Another interesting feature is a board, sloping downward above the instrument panel, on which the pilot may lay out his maps and papers and keep them in sight while flying. Though much has been done to make the pilot comfortable, it is surprising to find no provision for a parasol or curtain – an absolute must in Spain. The tail unit is an exact replica of the Weihe's, and the Weihe's droppable wheels are being used. The designers intend to install a wheel in later models.

First flight tests, made by Senor Zorita, INTAET test-pilot, proved that performance compares favorably with both Weihe and Sky. Best gliding angle was found to be 31:1 at 52 mph (Weihe: 29:1 at 39 mph, Sky: 29:1 at 46 mph). While the Weihe's slow speed qualities are better, its performance is topped by the VC-101 from 50 mph up. At 62 mph, the sinking speed of the VC-101 is 3.94 fps compared to 4.59 fps for the Weihe. At 125 mph, no vibration or hardening of the controls was apparent, and it was found to be impossible to spin the VC-101.

During my recent trip to Spain, I had ample opportunity to admire this Spanish creation, though I was not permitted to fly it. But I was able to compare its performance with both Weihe and Sky. Three of us took off together, myself in the Weihe and two instructors in the other two sailplanes. They flew formation while I followed them. It seemed to me that the VC-101 quite held its own when spiraling with the Sky. It certainly outclimbed the Weihe, though this may have been due to my inexperience. I remember once when the three of us circled in the same thermal. At 6000 feet, the Sky and the VC-101, 600 feet above me, decided to leave the thermal and find another one. I followed, but though I pushed the Weihe at 60 mph, I didn't catch up with them. Both craft kept very close together until the VC-101 dropped its nose a little. The Sky had to be content with looking at the other's tail. When I finally caught up with them, they were spiraling again and I had lost 1800 feet.

Instructors' opinions were contradictory. Some were very happy about the machine, while others preferred the Sky or the Weihe. A difference in the pilot's weight seems to play an important role. One pilot said the ship began to vibrate at 37 mph when spiraling; another, who weighed some 30 lbs. less, felt nothing. However, all agreed that the VC-101 had good maneuverability in thermals and was very stable. I sure would like to have found out for myself.

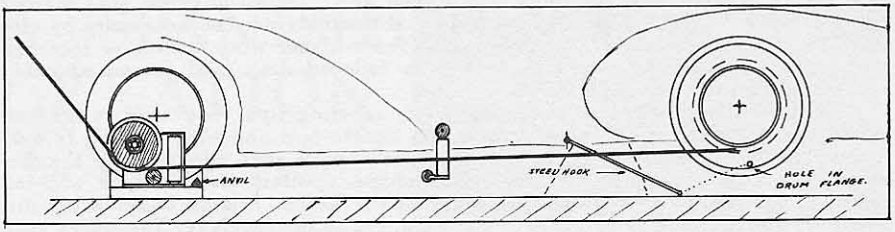
IN THE NEXT ISSUE

"Profile": a series recording the life stories of famous Canadian and U.S. glider pilots. Profile No. 1: Paul Bikle.

"Bulls and Kranichs" (in two or three parts): Walt H. Pratt describes his recent visit to Spain.

"Now, It's Easy!" (Part II): Frank Brame tells of his Gold C climb at El Mirage, California.

PLUS: all the usual features, including another Superclot adventure.



FRONT WHEEL

REAR WHEEL

STEEL PEG

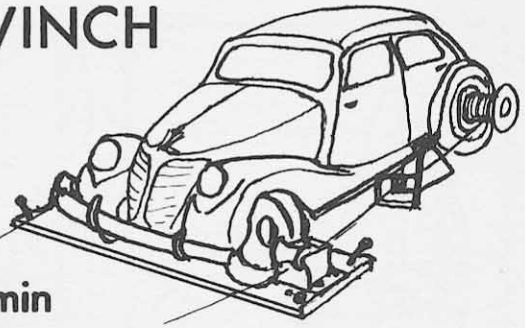
HAND OPERATED CABLE GUIDE

CAR SIDE

ROLLER ASSEMBLY

A CUT-RATE WINCH

- and how to build it



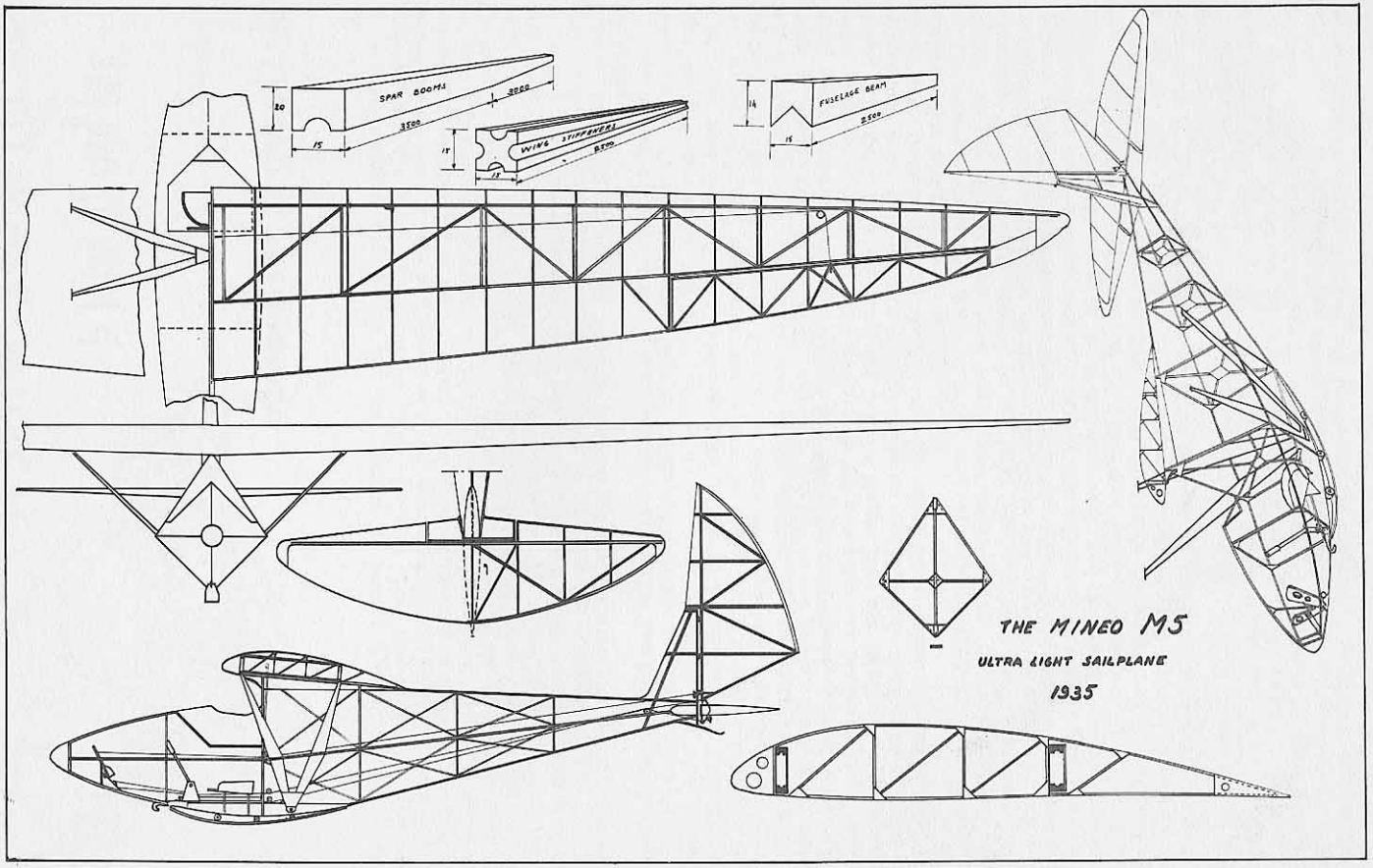
by Georges Jacquemin

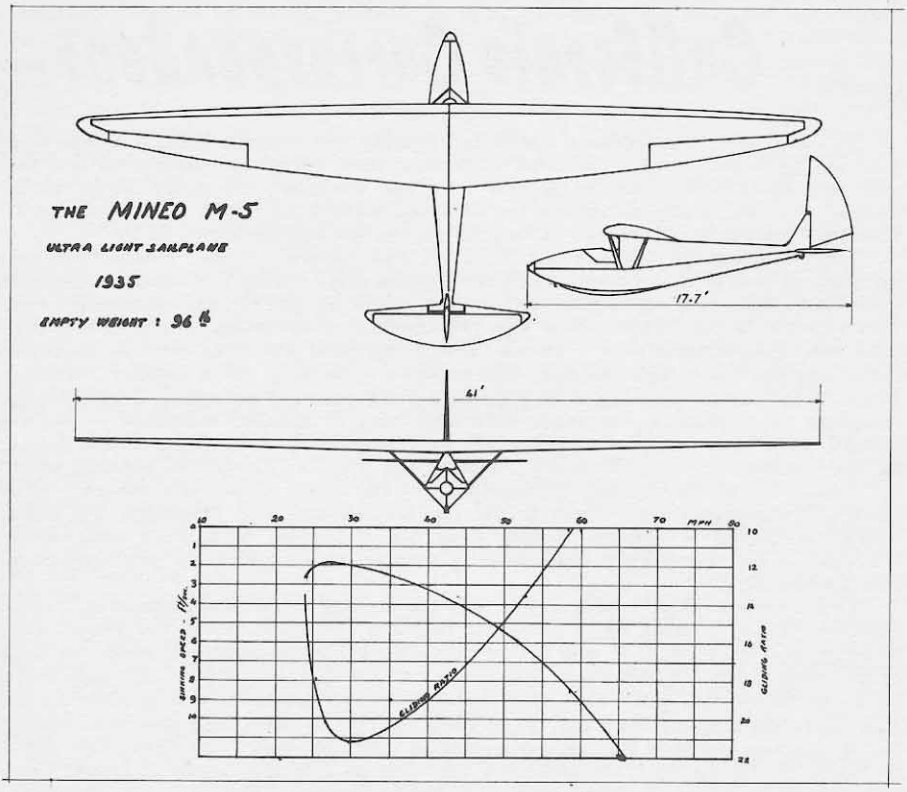
Winch-launching may not be the best method of putting a sailplane in the air; however, it has one good point – it is cheap. Using a 1300-yard length of cable and a well placed hook on the sailplane, one can reach anywhere from 600 ft. to 1000 ft. altitude; considering the rate of sink of a good trainer or two-seater as 2.75 to 3.0 fps, this gives an average free flight time of 2.7 minutes per launch, in calm air. We have in mind a method designed to permit the training of the greatest number of sailplane pilots at the lowest cost. No special virtues are claimed for winch-launching, apart from its low cost. The conviction expressed here is that winch-launching, used in conjunction with aero-towing, should allow such a lowering of the cost of learning to fly that a large number of new soaring enthusiasts may be initiated, thus helping soaring become established and receive the recognition due the sport.

Let us now describe a very cheap type of winch which has been in use for many years at the French National Center, La Banne d'Ordanche. This winch is made from an old car-80 to 100 hp – with fluid drive, if possible, and with a small truck rear axle adapted to it, although this is not at all necessary. With this old car, a very efficient two-cable winch can be made. Only a few accessories are needed; they can all be made from parts acquired in any car wrecker's lot – old ball bearings, mainly. As can be seen in the drawing, the car is rolled over a rigid piece of lumber two inches thick, which is pegged to the ground and has the cable roller assemblies bolted to it as shown. All rollers are made of hard wood. The main roller must have as large a diameter as possible; six inches is good, eight inches is better. This will give the cable a longer life; the larger the diameter the better, and wood will not damage the cable as would metal. Furthermore, wood is cheap and plentiful. The main roller will stand about three months of use; the smaller roller will last the season.

The winch reels can be made of 3/16" or 1/4" welded steel. They are bolted or welded to the wheels and must have good concentricity to avoid unnecessary vibration. Drum diameter should be as large as possible. Small diameter drums considerably reduce the life of the cable. While towing on one drum, the other is stopped by a hook attached to the side of the car. Simultaneous towing of two sailplanes is not possible without freezing the differential. A hand operated cable guide is shown in the drawing. It works very well, and this is the most economical way of building it. In practise, if the cable has been properly wound on the drum, it will wind itself without assistance and, on a large diameter drum, criss-crossing is not too bad. The last item is the emergency shear. The system shown in the drawing is probably the cheapest that can be made, consisting merely of a hardened steel anvil and a heavy hammer.

Generally, 1/8" steel cable is sufficient for most needs, and such a winch will require nearly two miles of it. This is, of course, the major expense in the construction of a winch. Negotiations have been started with a cable manufacturer, and it is quite possible that cable may be obtained at a special price. It is even possible that we may obtain stainless steel cable of similar strength characteristics but having a much longer life. If all interested persons will write in, stating their requirements, to give some idea of the quantity of cable involved, a price list will appear in the next issue of Free Flight.


SPAR BOOMS
WING STIFFENERS
FUSELAGE BEAM
THE MINEO M5
ULTRA LIGHT SAILPLANE
1935



THE MINEO M-5 by Georges Jacquemin

Soaring has always been an expensive sport, the major cost being that of the sailplane, so that many attempts have been made to produce a low cost machine. The cost per pound of sailplanes may vary, but since the lowest weight is associated with least amount of material, a number of designers have tried to build ultra light sailplanes. The sailplane presented here was built and successfully flown by Mr. Michel Mineo at Rabat, Morocco in 1935-36. Two machines were built and at least one 50 km. flight was made. Being a 1935 design, it reflects the philosophy of soaring at that time, when aero-towing was not yet accepted as a proved method of launching, so that only shock-cord and winch tows were foreseen. Low flying speed and low sinking speed were necessary for slope and thermal soaring. This in turn had the advantage of helping to reduce the weight. It is interesting to note how the designer coped with the problem of low structural weight. At a time when high performance sailplanes had an ultimate load factor of only seven or eight, a ULF of five was considered acceptable. By today's standards, this would be a fair weather sailplane only.

WING: The D-nose, which was already in use at the time for some high performance sailplanes, was not applied to the Mineo; the strut wing structure was found somewhat lighter, if not as rigid. On the other hand, it was a cheaper method of construction. The wing spars were made of .157" x .275" strips and a few of them .157" x .55". The finished wing weighed 66 lbs. It was made in two halves joined at the center line.

FUSELAGE: Before building the fuselage, the owner had to take his own measurements and design it to fit around himself. The fuselage structure was extremely light, being made almost completely of 1/16" plywood and .4" x .4" spruce strips. All control fittings were made of dural *(cont'd on Page 36)*

NEWS FROM OUR
California Correspondent —

Twice a year, the Southern California Soaring Association holds a Guest Weekend, during which certain members contribute their two-place sailplanes and their piloting, while others act as ground crew and do other necessary work, so that people who are really interested in learning what a sailplane flight is like can have this priceless opportunity merely by paying the towing fee of $3.00.

The weekend of October 22-23, 1955 was typical of the others, yet quite different in that so many people (120) were given rides during the two day soperation, with such skill and efficiency that it was noted by guests and old-timers alike. The keynote to the whole affair was the cheerful cooperation of pilots and crew. Like well-trained actors or a circus crew doing their act, they pitched in without orders on any backstage job that was required – running out a towline, helping a guest in to a ship, pushing a ship on or off the runway, switching from piloting a sailplane to piloting a towplane, then switching to another sailplane – and kept up the pace (one sailplane taking off IMMEDIATELY after another had landed) for six hours each day. A P-R, LK, Cinema and five TG-3's did the hauling, piloted by Bikle, Robinett, Licher, Minghelli, Tellez, Ziler, Butts and others. Wolfe, Licher, Klemperer Jr. and Bowmar did the ground work and organized the smooth operation. Wives – Eleanor Wolfe, Rose Marie Licher, Ruth Prue and Carolyn Bowmar – did everything from making change to rounding up passengers and running wingtips.

Your correspondent's meager part was the making of several permanent, painted direction signs, posting same along the highway the night before the event, and a little ground crew work. It was fun to leave work Friday night and head out to the desert with my eldest son Peter (14) and a car full of signs to post. We nailed them up as we drove out, and I hope that State Highway caretakers and aimless hunters will leave them where they are. Real work went in to them, and they could help a lot of interested people find our home-site in years to come – no easy task. Trying to locate El Mirage on a hot summer's day with no direction signs at barren desert crossroads is not recommended under the heading of "Fun."

We slept in the newly completed SCSA Home-site Building in sleeping bags and on air mattresses. As I lay there, I was happy to belong to a club that had progressed to the point where such a building (one of many planned) actually did become available to its members by the cash and labor of a few. It amused me, but with a feeling of shame, to remember how a few years ago I had strongly opposed this project, simply because at that time I hated the desert, despite the fact that there is wonderful soaring there. Only within the last year have I come to enjoy the desert, and now I look forward to these camping trips, though still very respectful of its dangers. What appeals to me most about the desert is the peace, the stillness, and the clarity of the air, especially at night when the stars are out. This peace comes with the dawn as you sit by an early-breakfast campfire, which I do often as Peter is anxious to hunt on these desert trips, and dawn is the best time to start. The dawn is truly inspirational since a full half-globe of heaven is exposed to view; as it becomes lighter, you are surprised to notice the array of colors about you. The bushes have many, many shades of green, gray and brown. Others are soft yellow, lavender, coral and white. Driving through, usually at high speed because it is often drab and monotonous, all this blurs in to not much of anything, but standing still, or walking slowly, one can absorb the real and unusual beauty that is found only in the desert.

Perhaps one of the most stimulating and alluring things about soaring is that, if you follow it for years, not only do you meet some of the nicest and most interesting people, but you will also experience every type of sleeping arrangement known to man: friends' homes, hotels, motels, barns, cars, glider trailers, tents, sleeping bags, etc., often with a startling assortment of sleeping companions and in various climates and seasons of the year. One of the great rewards is seeing unforgettable dawns in some of the most beautiful sections of our country and visiting historical or unusual places that happen to be near the soaring site. Such was my experience this weekend. For five years, on my visits to El Mirage, I

have seen, about a mile to the north of the field, two large adobe houses, roofless and shattered as though bombed; in fact, I thought they were bombing targets used during the war by the Air Force, then based at El Mirage and other desert airports. While out hunting with Peter, I decided to inspect these houses. They were about forty feet by sixty, of adobe, brick and plaster, with evidence of a high peaked roof and with a fifteen-foot deep cellar under one half of each building – a rarity in this part of the country. I couldn't tell whether it was a water storage basin or a cold cellar for storing food. What is so interesting about these two buildings is that they were built fifty or seventy-five years ago by a small sect who planned to be communistic (in the religious sense.) I had read of them, and believe they called their place "Paradise," but the sect and the plan died out. Trying to think back to those times – horse and waggon, pick and shovel, no communications, a hundred miles from civilization – and knowing the El Mirage area with its desert barrenness, its winds, its heat and cold and lack of water for either drinking or irrigation, it is flabbergasting to try to figure why-in-hell would anyone want to pick that exact spot of *nothing* to build a new paradise? I'm going to find out more about it; these people, though nuts by our standards, certainly possessed faith in God and had the courage to carry on, come hell and NO water. How did they build their churches and buildings?

I had the companionship of Howard Jerome, his wife Barbara, and one-year-old baby, Dick. It was their first trip to El Mirage and Barbara's first camping experience; she was a wonderful sport. I helped Howard get in some practise auto-tows with his newly acquired Baby Albatross. We had a peculiar experience; we simply couldn't get the Baby to roll and take off. As the wire tightened, the Baby tilted on its skid, slid anywhere from three to ten feet, then rocked, snapped the towline, and fell back on its tail skid with a loud thump. We interchanged pilots, drivers and tow ropes, and gave up after ten tries. The particular consistency of the dry lake – it was like lava soap, damp because it had been rained on the night before – prevented the skid from operating in a normal manner; it scraped hard on the lake and acted like a brake. Next morning, we auto-towed Howard off the airport runway with no trouble, and he got in a few hops till the wind picked up enough to make check-out flights in a Baby unwise. Howard is a power pilot, a recent convert to soaring, and showed good sense by waiting.

Saturday night was wonderful. I had built a cooking fire on a fifty-gallon drum, using bricks and a steel plate for the stove top. It worked swell, and Howard, Barbara, Peter and I cooked a fine meal. Then Carl Ziler joined us. It was moonlight, cool and peaceful, and a large campfire made it the most friendly spot in the world. Around us were the trailers and tents of our guests, and other campfires, and a large gang of visiting Air Scouts with a huge campfire rally going on. Peter had met some other kids, all interested in hunting, and we could hear several coyotes yapping quite near, so Peter grabbed his gun and set out with five other boys for two hours of night hunting – didn't get anything, but had lots of fun. The rest of us sat around the fire and talked soaring till after midnight.

On Sunday, helping with the guest operation, it was soaring's old and constant reward to meet old friends, unseen for months or even years. Irv Prue was there and told me of the new, super Prue - a high performance two-seater that Captain Butts has just ordered from him. Butts sold his 1-23E to Bill Hoverman, and Hoverman is selling his standard 1-23. This news is very exciting, because Irv is such a top designer and sailplane craftsman. I also heard of other new ship construction, and was told that several older ships are at long last being readied by their owners.

This weekend was work to many, and yet fun; it brought a sense of satisfaction to those of us who helped our guests enjoy soaring and created a little more understanding and goodwill for the sport, possibly introducing several people to a pleasure they will always be grateful for and will find ever-expanding as they pursue it. Most of all, some of these guests got a glimmer of what we in soaring already know, and may, in the months ahead, join us and become our closest friends.

Best regards from California, Land of Sun and Soaring!

PETE BONOTAUX

CLASSIFIED ADVERTISING: (WANT ADS AT 5¢ PER WORD PER ISSUE).

FOR SALE: Kirby Cadet (photo in Nov. 1954 issue FREE FLIGHT) recovered in 1954 with grade "A" fabric, always hangared, C of A to Nov. 1955, in excellent condition, NO TRAILER: OFFER Alex McMullen, 2186 Vine Street, Vancouver 9, B.C., Canada.

DIAMOND C MILK RUN

by Pete Stickland

In the State of Texas,
Not far from where the "X" is,
Stands a city, Grand Prairie,
Where glider pilots long to be;
Diamond C's grow on trees –
Give me a one-way ticket, please,
To the State of Texas.

Glider-guiders of both sexes
Gather in the State of Texas
From every country, every clime,
Drawn by weather so sublime
They couldn't fail to shake a tail,
Ridin' down the Diamond Trail
Across the State of Texas.

The multitude of craft perplexes
Heading for the State of Texas:
Schweizer, Schneider, Skylark, Spillo,
Taking off for Amarillo –
One by one, havin' fun
On that Diamond C milk run
Above the State of Texas.

Adverse weather never vexes
Pilots in the State of Texas.
Every thermal skyward sails
Taller than a Texan's tales;
The ships spin by, soarin' high –
Diamond-riders in the sky
Over the State of Texas.

If Los Angeles annexes
The northern half of the State of Texas,
Hollywood may stake a claim
To this Diamond-chasin' game;
If they did make a bid
We would see the Cisco Kid
Soarin' through the State of Texas.

Don't need good reflexes
To soar the State of Texas;
Greenhorns and experts follow the trail
Of Ivans, Parker and Coverdale.
Goodhart, too, came smiling through
To win two sparklers – why don't YOU
Migrate to the State of Texas?

CONCERNING FREE FLIGHT

by Pete Stickland

Canadians have one proud boast –
Our country spreads from coast to coast,
And size alone will never vex us:
Quebec is TWICE as big as Texas!
From St. John's, Newfoundland to Vancouver,
Fifty gliders can maneuver;
From Tuktuktoyaktuk to Toronto
Two hundred readers will tell you pronto:
"FREE FLIGHT's the only book for me
Since I joined the SAC!"

From Mon. to Fri., a Yank will try
To earn his pay so he can fly;
Getting hot around the collar
Working for the Yankee dollar.
On Sat. and Sun., when work is done,
He feels too beat to make the run –
Instead of driving to the site,
He stays at home and reads FREE FLIGHT!

VUELO SILENCIOSO used to scare us –
'Twas the only book in Buenos Aires.
Revolution came to Argentina –
Competition's now much keener;
Gliding fans shout their delight:
"Down with Peron! Viva FREE FLIGHT!"

Germans are known as always eager
For the sport of Segelflieger.
They were first with soaring rallies
Deutschland, Deutschland uber alles!
Treat us right – read FREE FLIGHT,
Switch our sales from SINKT to STEIGT!

Whether from Paris or Quebec,
Frenchmen are passionate as heck.
It used to be "Toujours l'amour!"
But the gals are yelling "Au secours!"
They're feeling lonesome now, at night;
To heck with love – toujours FREE FLIGHT!

Englishmen are widely known
For shocking accent and mellow tone:
"I say!" "Good day!" "Whacko!" "Blimey!"
Are expressions used by the typical Limey.
"Jolly good show! Don'tcher know
A new magazine is on the go –
Frightfully clever, let's endeavor
To mike this piper 'old tergevver!
Don't let's desist till every blighter
Becomes a bally good FREE FLIGHT-er.
Let's cram FREE FLIGHT down every gizzard-
Bang on, you chaps! I think it's WIZARD!"

✸ LETTERS ✸

Re Jack Lenaghan's query about films: I have been handling them for several years and this was mentioned some time ago in *Free Flight*. Unfortunately, Jack's request has never reached me. Perhaps you would mention this set-up in your next issue in case there are others who would like to borrow the films.

Ottawa ELVIE SMITH Johannesburg JOHN DELGOFFE

Ken Newman has forsaken gliding temporarily. He bought himself a truck and he and his wife are at present on a six month overland safari to the U.K. When last heard from he was still going well, somewhere in the Congo. (It'll be one hell of a retrieve if he doesn't make goal.) In the meantime, I'm trying to fill in with the editorship of *Wingspan*. The next issue will be out in December, immediately after our national champs.

I am now in the process of putting together my notes on observations of the wave and Chinook Arch conditions found in Western Canada. My fund of information consists of a day-to-day record for a period of over a year. In many instances, the report is a minute-by-minute observation of cloud formations, patterns, temperatures, etc. These wave conditions are present all year round and are not just a particular winter condition.

It is my opinion that the wave can be picked up at about 10,000 feet above Calgary, and indications point to steady, smooth lift in advance of the Chinook Arch front. It must be pointed out that wave conditions not associated with the true Arch show variable conditions that change in continuous sequence, being tossed, torn and swirled by great aerial eddies that cascade down the lee side of the western ridges. Some idea of the prevailing conditions may be garnered from the magnitude of the Chinook winds which are felt well in to Saskatchewan, hundreds of miles from the Great Slope, where isolated lenticulars may be found.

My Zephyr is being equipped with oxygen and a complete set of navigational instruments for attempts on the waves out here. The ship has not yet been test flown. Work on it stopped in June when our eldest daughter came down with a serious nervous condition in which she was partially paralysed and blind. She is now back at school and leading a fairly normal life, and since I can give my time to finishing the Zephyr, it will undoubtedly be flying in early spring. It carries the registration CF-IAR-X and the DOT have been favorably impressed with the work done so far. After the test flights, if the performance is what I have calculated, drawings will be submitted to obtain type approval and plans will then be offered at cost.

Several changes have been made. The German beveled wingtip is now incorporated and brakes and spoilers have been eliminated. For aerodynamic brakes, I am using rotatable wing struts as used on the D.H. Puss Moth. The streamlining on the struts can be turned 90° to effect full drag, and in thermals, the angle of attack is varied to obtain extra lift. The wing is exceptionally strong. It has been beefed up; the leading edge ply is slightly heavier and has been bonded to the ribs by steel-band clamping, getting maximum strength. The Zephyr has its own hangar, a completely enclosed 24-foot trailer built of wood and ply on wooden airplane principles. I'll be sending details of its construction soon.

Calgary NORM BRUCE

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My 1-26 is rapidly approaching the point where only the covering and doping remain, thanks to the efforts of Jack Lambie of Elsinore. Between the time I ordered the kit and received it, I unexpectedly moved to California to do the flight testing phases of a boundary layer control project. Although my function is that of flight observer rather than pilot, I do derive a good deal of pleasure from jet flight in the tropopause. Since my work keeps me at Muroc a portion of the time, and since I had no shop or tools, I was happy to accept Jack's offer to build the 1-26. We are now eagerly anticipating flying it toward the end of the year. Will keep you posted on the progress.

The quality of your magazine, and the enthusiasm and drive which you are putting in to it are certainly exceptional. I shall do everything I can to find additional subscribers for you in this area.

Palos Verdes Estates, California
BRUCE H. CARMICHAEL

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Toledo Gliding Club is steadily growing. We now have six sailplanes: two 1-19's, two Baby Bowlus's, one 2-22 and one Cinema. For air tows, the club uses a Stearman and also has available a Cessna 170 and a Piper Cruiser owned by members. On October 9, we towed three sailplanes to Fort Wayne, Indiana and back, spending the day with Ray Jackson (Detroit), Larry Gehrlein (Erie) and Zada Price (Frankfort). Many flights were made during the day. On October 16, cumulus clouds started to pop up at Toledo at 1:00 PM. 'Phone calls got a few members out. First tow was at 3:15 PM; altogether, six tows on three ships resulted in nearly four hours soaring. Best altitudes were 6200 feet by Jim Neiferd, 4500 feet by Jim Smith, a newcomer with only eight glider flights but plenty of power time, and 4000 feet by Winston Smith, a teacher at the local Vocational School. We were through flying by 5:25 PM.

We are pretty active, so look out! One can never tell — we may drop in on you in Toronto via sailplane.

Toledo, Ohio JOHN NOWAK

CALIFORNIA!

SOARING IN THE GOLDEN STATE

NIGHT FLIGHT AT TORREY PINES

by Bob Brown

from "The Thermal" April 1954

HAVING COMPLETED MY FLATTOP TG-2, I was eager to try it out on the cliffs at Torrey Pines. After work one evening, a friend and I drove out to the field with the idea that he would tow me and I would fly for an hour or so before dark. At the field we readied the ship for flight, taping small position lights on to wingtips and tail as a safety measure in case it was dark when I landed. The car tow was easy because of the strong wind which was blowing about 18 knots. I released and turned out over the cliffs, encountering strong lift. The top of the lift was at 1300 feet ASL.

It seemed only a short time till it was almost dark and time for me to land. The wind was too strong to allow the normal downwind landing. The downwind leg of my landing pattern was covered so rapidly I found myself too high on the final leg, and as I crossed the trees at the end of the runway, the updraft from them lifted me another 200 feet. The air was very turbulent, so I decided to go round again. I lost so much time regaining position for another try at the field that it became too dark to land. A real gale was blowing and I knew I would be safe till the moon came out to give me light to try a landing when the wind died. Meanwhile, my friend gathered flare pots from a road repair tool shed and placed them along the cliff top, outlining the runway; this was a great help as it was now black dark and I needed a reference point on the ground very badly.

I was quite comfortable, and began to enjoy the night flying since I had no alternative. After two hours, the moon came out and to my dismay it revealed a huge, dark, ominous cloud approaching from the sea. I had small hope that it would pass to the north of my position on the cliff. In half an hour my worst fears came true. The cloud hung directly overhead, blanketing the moonlight. Suddenly, as though a valve had been turned, the wind died and the ship started to sink in to the blackness: 700 . . . 600 . . . 500 . . . 400 . . . Beads of perspiration dropped off my forehead as I strained to see the feeble glow of the flares lining the runway. Then all the devils of the sky reached out and threw the ship upward in to a turbulent mass of air. The rate of climb indicator raced to, and passed, 1000 fpm. Airspeed was 80 mph and didn't slow very much when I came back on the stick. The drumming of hail on the canopy made me pray it would get no larger.

All contact with the ground had long been lost. I heard Dave Boone saying "If you ever get in to trouble in a cloud, let the ship fly itself." I took my hands away from the controls and let the old ship go where it would. At times, the airspeed would go to 85, then to 50, and I would be thrown against the safety belt. The cloud had us by the nape of the neck, throwing us up and shaking us at the same time. The ship seemed to enjoy its new freedom, bucking like a colt just let out to pasture. I said to the cloud "You've had your fun — how about letting us out of here?" As though it heard me, everything became calm. I saw moonlight and took control of the ship, coming out of the cloud very near the top. This was the magic moment of my entire life. Here I sat on a huge section of cloud, bathed in moonlight, surrounded by other white cloud mountains.

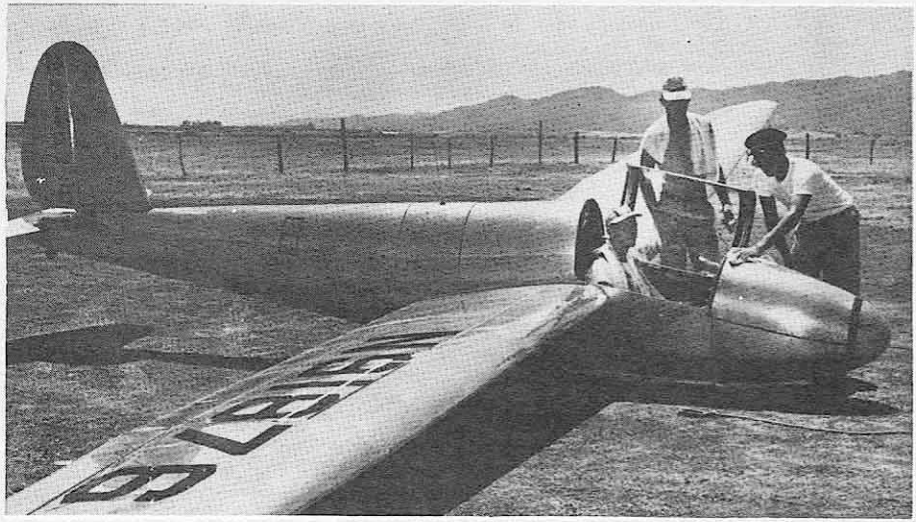
For the next two hours I soared up the face of one cloud after another, eventually spiraling down through an opening and returning to the cliff. The moon was shining and the wind was blowing again. I stayed aloft over the cliff till 4:30 AM, then landed on the beach to end the most exciting flight of my life.

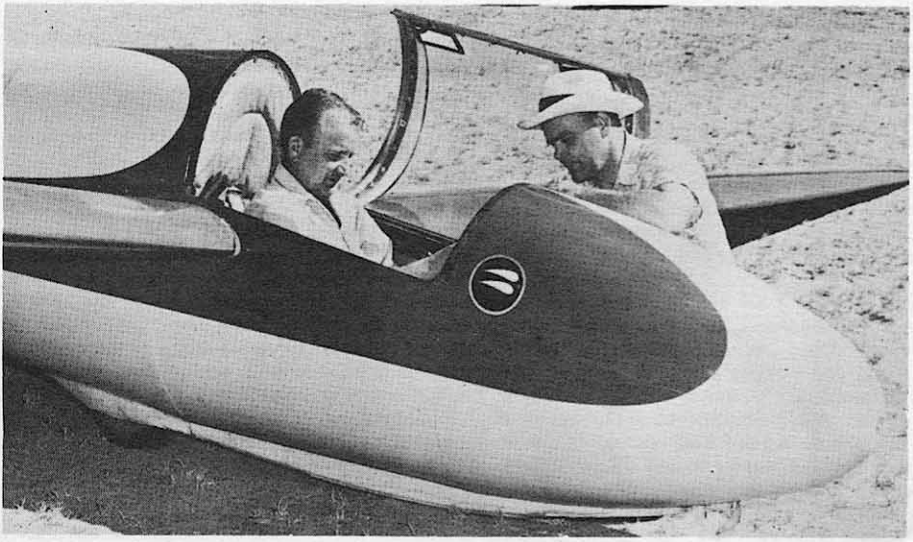
Pictures Opposite

TOP: Bill Ivans, third in recent SCSA Contest, with 1-23 now owned by Jack Ames, Gordon Oates and Charlie Yeates of Toronto Gliding Club.

CENTER: Don Stevens with the Baby Bowlus he flew to victory in Class C of the SCSA Contest.

BOTTOM: Paul Bikle, SCSA Contest winner, shows his 1-23 to a newsman (in cockpit.)





ELSINORE SHEAR LINES

by Jack Lambie

. . . . from "The Thermal" December 1954

THE ELSINORE SOARING SITE owes a great deal of its popularity and consistency of soaring conditions to the meteorological phenomenon known as a shear line. A shear line is defined as the line between two different air masses. There is very often a wind shift of 180° between the differing air masses. All of us at Elsinore have noticed that the hazy air north of the valley will move in over the field in late afternoon, and that updrafts would be found along the edge of this hazy air. Seemingly, when this condition occurs, soaring is very poor except at the shear line.

I remember the first few times I soared in these conditions, I was quite startled at the great differences in the types of thermal encountered. When one flew in to this area there would be severe jolting turbulence at times, and it was very difficult to get a steady variometer reading. This made it hard to center the thermal. The needle would indicate 500 fpm climb for part of the circle, then drop to zero or indicate sink, then rise again, with sometimes a severe jolt as the actual line was crossed. No amount of careful maneuvering seemed to give a steady reading on the meter. Other gliders soaring the condition seemed to be positioned along the line at points 300 feet in or out of the haze. It would appear that the line is not straight, but waves in and out. Some of the sailplanes would be working the lift out on one of the protrusions, and some in a cove of the shear line. If the shear line moves in across the field in late evening, the lift is much smoother, but this same waviness in the line can be detected. It is interesting to note that under these late conditions the line can be soared only until shortly after sundown and only up to about 2000 feet above the field, then one by one, the ships head toward the field.

Another type of frontal condition cannot be identified by any haze at all. This is what may be called a "clear front". These clear fronts are most common in summer when great thunderstorms build up over the San Jacinto Mountains. Later in the day, they dissipate and suddenly seem to move toward Elsinore, reaching there in late afternoon or evening. By the time this type of front gets to Elsinore, the only thing to mark its presence is a thin band of cirro-cumulus. However, there is a very excellent general area of lift under this cloud. George Lambros soared his Orlik well over 3000 feet until 8:20 PM in these conditions. Most of us will remember the great forest fire which burned some 8000 acres in the mountains north of Elsinore. One of these fronts was directly responsible for this fire going out of control. It was interesting to watch the innocent looking band of clouds high in the air approaching the fire, which was only a few hundred acres in extent and 80% under control. As the front arrived over the smoldering fire, flames leaped up anew, smoke billowed to an estimated 20-30,000 feet and the fire immediately swept out of control, much to the bewilderment of the fire-fighters.

The extent of the shear line in this area was not realized until I bought a Triumph Thunderbird motorcycle and used it to commute between Riverside and Elsinore daily. The winds encountered are much more apparent out in the open, and one almost becomes a human thermometer. Coming home after work, it was observed that the wind consistently shifted 180° between March Air Force Base and a point somewhere south of Perris. An average 12 mph wind would be blowing against my back as I cruised toward Elsinore on Highway 395, when suddenly, a sharp gust would hit me, and the wind would be encountered from the directly opposite direction. The line seemed to have the cooler air on the west side, and the hot, dry air on the southeast side. Realizing there must be a shear line here, I thought of renting a small plane sometime and exploring the area for lift. Little did I realize that the line extended all across the area, starting close to Elsinore. All I knew was that I was consistently running through a wind shift near Perris, and that it could have possibilities for lift.

On the Fourth of July, Terry Terman, a student, and I were flying over the hills southeast of Elsinore Gliderport when Terry became airsick, so I flew a while to let him rest. I decided to try a run toward Perris to see if there was anything doing over there. As we had enough altitude to get there and back even if there was no lift, I steamed over and immediately hit strong thermals on the edge of what I recognized as the shear line. I could then see that the line ran from Alberhill north of Elsinore to Perris through Gilman Hot Springs, and on out in to the San Gorgonio Pass. I followed this line flying straight to Romoland and then on to Gilman Springs.

The line appeared to dissipate out in the Pass area, so we turned around to go back. Outside the line there was no lift at all, and we lost too much time looking for it, thus finding ourselves very low over the Nuevo Mountains. It was with great relief that we came over the mountains and worked back up from 800 feet off the ground to 2000 feet, and then on to Perris. At Perris, we again met the strongest part of the lift and gained enough at 900 fpm to easily sail back to Elsinore Gliderport. It was 5:30 PM when we arrived over the field in smooth air with no other gliders up, yet just ten miles away the dust-devils were still smoking skyward.

It seems that the greater the contrast in clarity between the masses, the greater will be the thermal activity on the shear line. For example, during that poor Saturday of the 21st National Soaring Contest, it was generally hazy all over and few gliders stayed up or were able to get away. Dick Johnson and Ray Parker managed to get to 5000 feet above the ground north of the field, but then, for some reason, made straight glides away from the shear line in to Ryan Field at Hemet only 18 miles away. Bikle and Ivans flew the line to their goal at Banning, (32 miles) but were unable to return because the line faded out in to the Pass. Jack DeGovia and myself in the Boulder Club's TG-3 made it to Gilman Hot Springs but were unable to gain enough altitude there to safely cross the badlands, so we soared in marginal lift a while and then landed. There simply was not enough contrast between the two air masses that day for real activity all along the line.

Several weeks after the big contest, Jack DeGovia and I again made a cross-country in the Boulder Club's TG-3 under almost ideal shear line conditions. We towed aloft, released, and gained altitude over Elsinore until we were high enough to make a straight glide to the shear line, which this day was actually closer to the field to the northeast instead of to the northwest. After doing training maneuvers on the way in slightly the wrong direction and getting too low, we finally contacted the line, and went easily to 4200 feet above the ground. We then cruised straight along the line, gently rising and sinking between 3700 and 4200 feet. Air to the east was crystal clear and the scenery really beautiful, while to the west the haze was quite thick and visibility was low. Arriving over our landing place of a few weeks before near Gilman Springs, we had a comfortable 3700 feet. We felt so good at this point that we strayed away to try out a group of strong dust-devils arranged in a circle that were whirling around trying to lift that field off the ground with them. On arriving over the field we found very little lift, and after searching around we headed back to the shear line a few miles away. On the way back we ran in to a dust-devil that had broken with the ground and was hanging in the air. This thermal had very good lift all the way up. It seems the other thermal had simply not reached us yet, but was still stuck to the ground and whirling.

With 4200 feet in hand, we sailed over the badlands fault system and on in to the San Gorgonio Pass. It seemed we were at 25,000 feet instead of 4200, compared with how these hills looked from 1500 feet on our last attempt during the contest. We gained all the way to Yucaipa until 4400 feet registered. Our only difficulty had been drifting in to clear air as we rose. We had to keep pointing the nose in to the haze as we flew along the edge whenever we ran out of lift. Thus it was that, as we turned to go back, we hit strong sink and made the mistake of turning too far in to the haze. Our sink went to 1000 fpm and we frantically flew about trying to find our lost shear line edge. We made it back across the Pass to the edge of the badlands again, but were too low to cross safely. We then turned toward Beaumont, hoping to make the airport, but had to land in a big plowed field on high ground. On landing we discovered our mistake because right at our landing spot was the edge of the shear line and the thermals were whirling away merrily. We had simply turned the wrong way. It took us two days to get the glider down from this field with the aid of a borrowed jeep.

Elsinore shear line conditions are most fascinating to fly in; they are continually changing as to position and movement with the seasons and time of day. They can be flown quite late in the day in certain parts. These extra strong parts of the shear line shift also, sometimes being near Elsinore and sometimes at any other point from there on, depending on conditions at present unknown to the writer. All in all, the shear lines are what make the Elsinore site one of the most interesting in the country, and probably the most consistent for soaring. The presence of sunshine is apparently not necessary, as the conditions are soarable even in dull weather with an overcast of stratus.

LAST TWO DAYS

by Bill Royce

from "The Thermal" September 1955

AT 11:30 SATURDAY MORNING (SEPTEMBER 3) I stood in the El Mirage sun, watching Hoverman's 1-23 climb in to the air behind the towplane. Here was the initial take-off of the final two days of the SCSA Contest. In Class C, Don Stevens looked like a "shoo-in" to win. In Class B (two-place), Carl Ziler and Vivian Thompson seemed assured of winning. Harold Hutchinson had a healthy lead in Class B (one-place). Paul Bikle had a staggering lead in Class A with 823 points contrasting Bill Hoverman's second place total of 490. Lyle Maxey was in third place with 408 points, Bill Ivans fourth with 376, and Ray Parker fifth with 361. One would think the greatest concern would be deciding which of the four after Bikle would win second place. Not so! The tremendous spirit of competition was evident by the attitude of these four pilots — none was conceding victory to Bikle.

Hoverman had bad luck on Saturday. Leaving El Mirage, he glided twelve miles without lift. Over the ridge at Sun Hill Ranch he was down to 700 feet. He played the ridge lift for thirty minutes, and climbed to 2000 feet above the terrain. Debating whether or not to return to El Mirage for a second start, Bill decided to continue as planned. The area was completely dead, and he just managed to get back to the Sun Hill strip. By the time his dismantled glider reached El Mirage, Bill felt it was too late to try again. Later, the 1-23 was assembled and Hoverman took off to explore late afternoon and evening conditions pursuant to returning from a possible long goal and return flight next day. In short order he radioed down from 15,000 feet. He heard Ivans talking to his crew in the Owens Valley. Already Ivans had reached his goal of Bishop and was on the return flight to El Mirage. Bishop is 196 miles from El Mirage. Bikle was transmitting to his crew, but his use of letter and number codes for ground locations made it impossible to determine his position. Maxey was returning from his goal of Amboy, 105 miles east of El Mirage.

At 6:30 Bill radioed that Maxey was only ten minutes from the field with a good chance of making it. Soon, the Jennie-Mae was spotted. The high performance glider with its sleek lines and dark red color was beautiful to behold; in the clear, clear air with the sun shining on the long wings, the glider appeared vividly alive against the blue sky as Maxey banked around the field. Swooping in a victory dive, Lyle buzzed the field, chandelled in to his pattern, and landed gracefully on the the runway. The flight earned 294 contest points, with still another day to try to catch Bikle.

Hoverman radioed that Bill Ivans had landed at Inyokern. Although failing to make his goal and return, Bill had covered 312 airline miles which earned him a few more points than Maxey. Hoverman was still at 15,000 feet. He called Palmdale radio for further news. Duke Mancuso, Ray Parker, and Harold Hutchinson had all made goal flights to Bishop.

Night blanketed El Mirage. Remembering Bikle's late return of two weeks ago when he set up a new national goal and return record, ears were tuned for the swish of his victory pass over the field;such is the reputation Paul has established. Everyone except Hoverman's crew had forgotten that Bill was still high over the field. The crew were out on the field with the car headlights on as a guide for Bill, who was coming in. He did wing-overs all the way down to lose altitude, and in the still night air of the desert, he was heard. A flurry of headlights began to snake toward the flight line as the invisible Hoverman zoomed overhead and chandelled in to his pattern. As he approached the runway, excited voices could be heard shouting "It's Bikle! It's Bikle!" The 1-23 rolled toward the headlights and stopped. A crowd gathered and disappointment was evident as Hoverman stepped from the cockpit. There was a sheepish silence, then the humor of the situation engulfed everyone, and Bill took a good-natured ribbing.

The moon came up, full and bright. The night air cooled, to become downright cold before morning. The sleeping was wonderful. The sun rose, and the early morning air warmed quickly, presaging an unusually good soaring day. Time passed, and the first really conscious moment came at 13:15 while gassing up at Kramer Junction. Hoverman, ten miles ahead, was on his way to Independence for a goal and return attempt. It would be touch and go to arrive ahead of him, so off we sped. At Johannesburg, we heard Maxey passing over Inyokern and we guessed

that Bikle was behind Hoverman. At the Owens Valley entrance, Maxey told his crew to leave the trailer by the roadside and speed faster to his turning point. He was at 14,500 feet and making fabulous time, apparently attempting a goal and return with a turning point some place between Lone Pine and Bishop. Conditions were ideal for Jennie-Mae; at last she was putting out her long awaited maximum performance. Some way from Independence, Hoverman at 17,000 feet spotted Maxey on the way back at 18,500. Bikle was close behind Hoverman.

A new transmission was heard: Sterling Starr, also at 18,500 feet, called his ground crew en route from Bishop on a non-contest goal attempt to El Mirage. He was trying to return in the LK Duke Mancuso had flown to Bishop the previous day. Sterling's last transmission ran: "Am still at 18,500 feet. Yippee! El Mirage, here I come!"

A cloud street ran the entire length of Owens Valley and in to Nevada. Cloud base was at 20,000 feet. The valley floor was sizzling hot,the air was sparklingly clear, the Sierra and White Mountain crags stood out in sharp relief against the rich blue of the sky, the cloud shadows painted bizarre pictures, and the day was a glider pilot's dream. One pilot was definitely not dreaming. At 16:15 this Sunday afternoon, September 4,1955, Paul Bikle made a decision that won him the contest.

Racing back down the Owens Valley from Independence, Hoverman's crew tried to catch up as he flew swiftly southward toward El Mirage. The sun was setting over the Sierras and the early evening hues were beginning to color the sky. Word came by radio that Maxey was nearly home. Our hopes were really with him. Radio transmission became faulty due to the terrain and the intervening distance. Arrangements were made for Hoverman's crew to wait for a telephone message at Davis Airport in case radio contact was broken. On the last transmission, Hoverman relayed the news: Bikle had instructed his crew to proceed to Hawthorne, Nevada. The die was cast. Paul had decided to follow the cloud street and strike out for distance. Having previously flown over the route Bikle planned to follow,the author recalled the mountainous, forbidding country that lay before him. Large, rocky plateaus, scattered lakes and cavernous valleys are common to this area. Memories of tossing about like a chip in late afternoon thunderstorms prompted the wish that Bikle could avoid such conditions.

Night slyly slid its dark shroud over the countryside and one drove enchanted by the beauty of the fading day. Davis Airport was reached at the moment of day's end, and no glider had landed. A call to Inyokern disclosed that Bill Hoverman had just touched down there. The retrieve ended at El Mirage at 01:00 Monday. After a welcome sleep, pilot and crew repaired to "The Inn" for breakfast. What a hubbub! Everyone was talking. Most believed that Maxey had won the contest. Bikle's takeoff card called for a goal and return flight with a turning point twelve miles beyond Independence. When he didn't return Sunday night, it was thought he had landed on the way back. If this were so, Maxey's completed flight gave him a few more points than Bikle. Only Hoverman and his crew knew of Paul's decision to forego his goal and return bonus. When this was announced, the figuring started, Bikle was known to have passed Bishop. To make as many points as Maxey, he had to fly 104 miles farther. Conjecture ran rife as to his chances of doing this.

Returning to Manhattan Beach to publish THE THERMAL, we did not know until late Monday night that Paul had landed at Toulon, Nevada, 370 miles from El Mirage, to win the contest. At 16:15 Sunday, 18,000 feet above his goal, Paul realized that Maxey was well over an hour ahead of him on his return flight to El Mirage. Having returned only to Inyokern on a similar attempt the day before, Paul must have figured how many points he needed to assure himself of victory. This done, he decided that his chances of flying the straight distance were better than any other course. Experience, courage and clear thinking certainly paid off.

Congratulations, Paul Bikle! Congratulations too, Lyle Maxey, for establishing a new international goal and return record of 305 miles!

Name	*Glider*	*Class*	*Pts.*	*Name*	*Glider*	*Class*	*Pts.*
BIKLE	1-23	A	1062	HUTCHINSON	LK	B	591
MAXEY	Jennie-Mae	A	986	FRANZ	Prue 160	B	396
IVANS	1-23E	A	691	MANCUSO	LK	B	389
ZILER	LK	B*	512	STEVENS	Baby Bowlus	C	320
AIKEN	PR	B*	249	BRIEGLEB (R)	Cinema	C	108
LAMBIE	TG-3	B*	128	LICHER	1-7	C	24

* two-place

Club Championship: BOULDER CLUB

Junior Champion: Ross BRIEGLEB *Feminine Champion:* Eleanor KLEMPERER

PARIS-BIARRITZ by Eric Nessler

From "Planeurs de France"

Translated by Georges Jacquemin

In spite of the difficulties we had to meet in organizing it, I was quite enthusiastic about this competition, which was the first race in a straight line to be made in gliders. From the climatic and geographic point of view, the choice of itinerary was very good and the sympathetic attitude of the people we were to meet along the way promised an agreeable trip. For me, with memories of the first automobile race from Paris to Madrid in 1903 and by airplane in 1911, this race to be held on part of the same historic route, was even more attractive; I looked forward to it for sentimental reasons.

Adding the useful to the agreeable, I entered the race with an AV.36 of the series built by Wassmer. Thus, in addition to all the tests which had been done under my control, we could get valuable information about the behavior of the glider trailer during retrieving and high speed towing over long distances in rather bad weather. The latter point seemed assured, since meteorological conditions were as persistent as they were unfavorable. The good gliding ratio of the AV.36 at high speed gave it about the same chance as that of any other sailplane in the race. Landing in the countryside, particularly between Bordeaux and Biarritz, was a subject of concern to all competitors but myself. The experience of certain students who had landed in "mouchoirs de poche" (handkerchiefs), badly paved places, or in tall vegetation eased my mind in this respect.

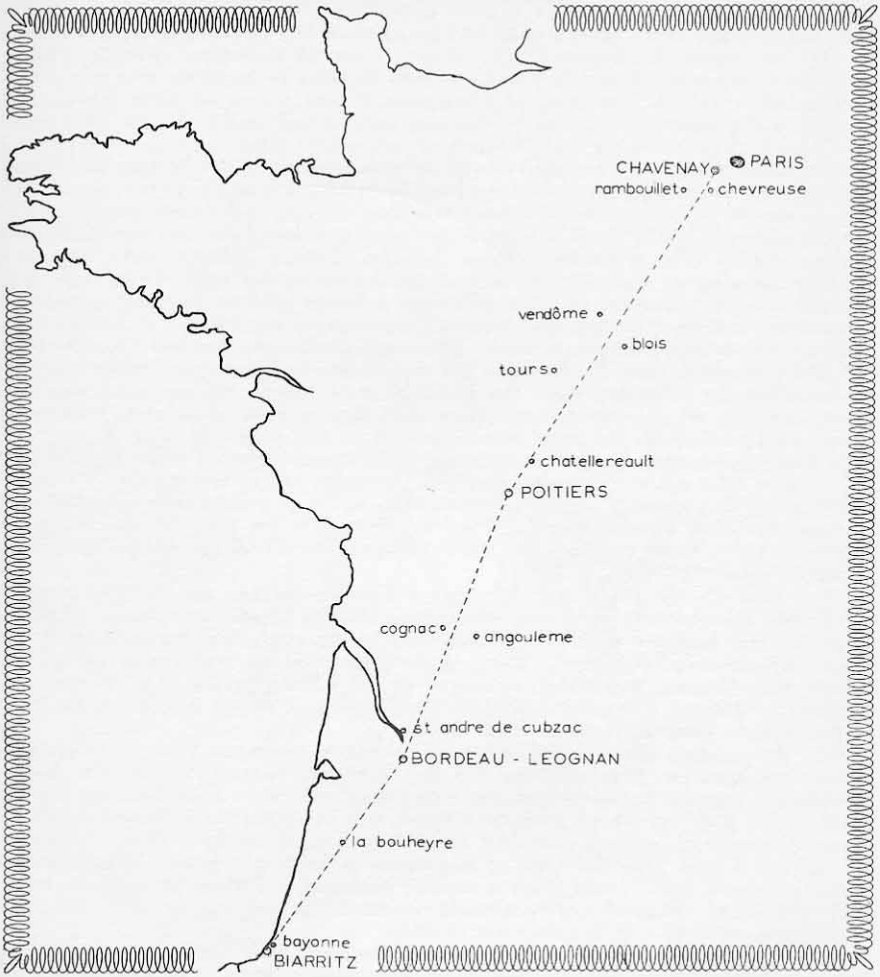
Also, I appreciated the fact that with the AV.36, I was getting rid of those delightful drudgeries of dismantling the glider after each landing in the country & reassembling it before take-off, a nicety that other types of glider have been reserving for their pilots & crew for the past 25 years. My crew was made up of Messrs. Fauvel Junior and Hastoy who made the first two 50 kilometer flights in the AV.36. They were towing the trailer with a jeep.

The race was to be run in three legs within six days:

1)	CHAVENAY to POITIERS	175.0 miles
2)	POITIERS to BORDEAUX	142.0 miles
3)	BORDEAUX to BIARRITZ	96.5 miles
	Total	413.5 miles

In case of landing in the country, take-off was to be made from the nearest airport behind the landing point. Pilots unable to cover a leg of the journey in the allotted time were to be penalized and allowed to complete the distance by road.

At 11:45 AM on June 27, I released from tow at 2300 feet above Chavenay. It was obvious that the direction & strength of the wind were more favorable for flying northward than southward. The half dozen sailplanes that had taken off ahead of me were spread over a large area; some of them had gone downwind, others were going towards Rambouillet. One cloud out of three was fed by a broken, turbulent thermal because of the strong wind. In one of these, I found the three Air-100's, Nos. 9, 12 & 13, flown by Marbleu, Deleporte and Rouchette. The turbulence was such that I could just notice No. 9 leaving the thermal as I was coming up below him at a higher rate of climb.


CHAVENAY
PARIS
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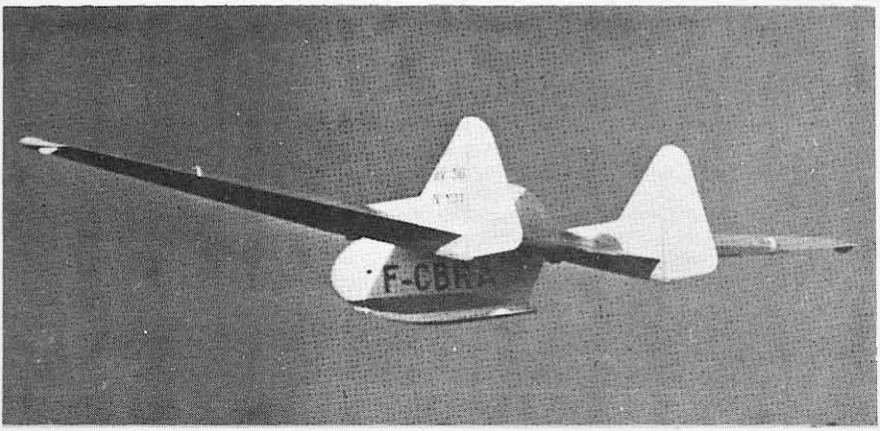
BORDEAU - LEOGNAN
la bouheyre
bayonne
BIARRITZ


F-CB

I steered the wing towards a more promising cloud, but over Chevreuse, a tactical error put me in general sink at 15 ft./sec. A few minutes later, I was down to 150 feet above the bottom of the valley in strong turbulence with my choice limited to very small fields in which to land. In order to be close to a telephone, I selected a field in the town of Chevreuse. It was a sort of little depression, marshy at the bottom, encircled by houses, poplars and walls. A cow (of course) was on a high point of the field (important indication: cows stay where it is dry.) I brought the wing to a near stall above the trees, dived about 30 feet and landed uphill in the direction of the cow, stopping by putting a wingtip on the ground and turning around it. I stopped about three feet from the cow and fifteen from the wall. The maneuverability & small inertia of the wing accounted for half my chances of getting out of this situation without damage. Twenty minutes later, we were loading the wing on its trailer in one of the streets of the town. We had not gone two miles in the direction of Chavenay when a farmer told us that four sailplanes had landed nearby. The day was lost, but fortunately, not for all. Fonteilles was the only one to reach Poitiers, while Tahon and Combettes reached Chatellerault.

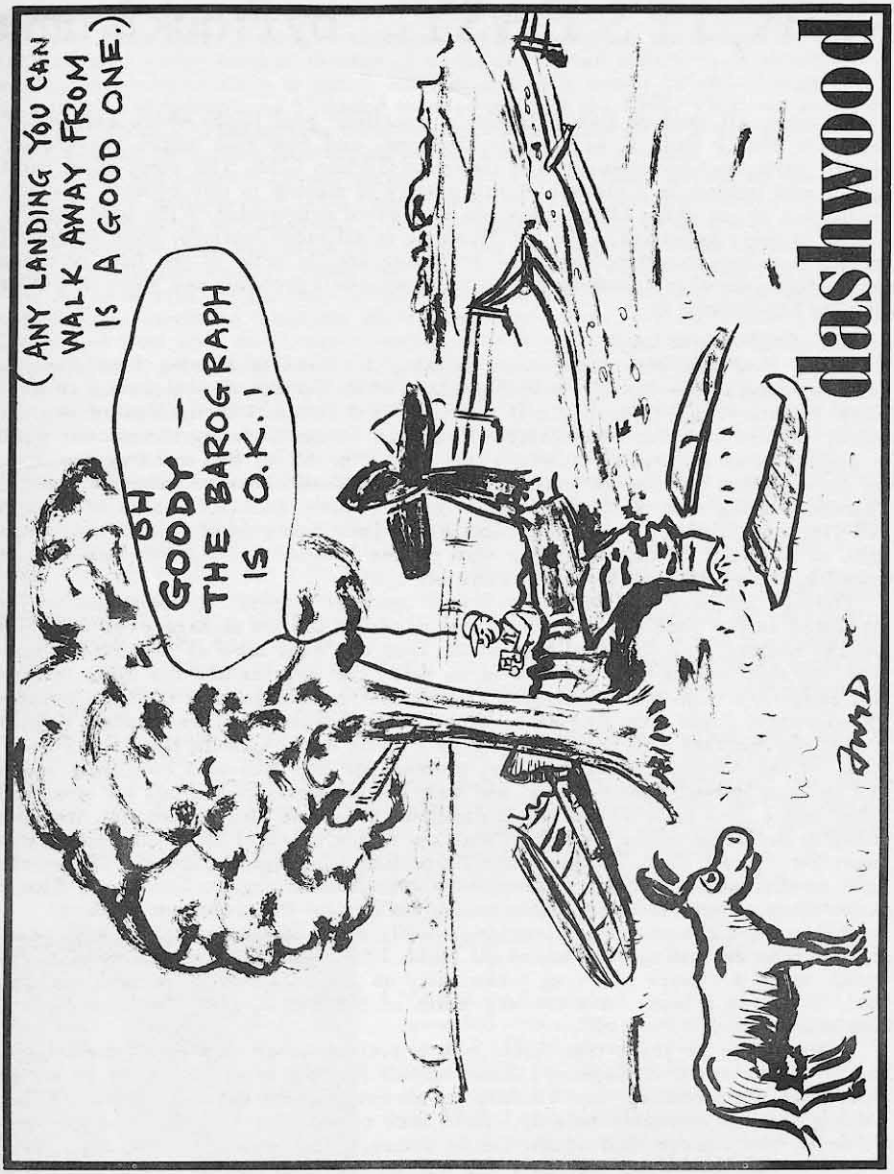
The day after, June 28, I had to get to Poitiers in order that I might carry on to Bordeaux the following day. The thermals were better, but the wind was still strong. I had to fly the straight stretches at 75 mph in order to maintain an average speed of 25 mph with the wind three-quarters on the nose. Passing Vendome at 3:00 PM, the weather changed and the clouds stopped lifting. I might have landed at Blois to take off when conditions were favorable again, but hoping to find lift I kept going (big error). I landed 12 miles short of Tours near a farm equipped with a telephone line (disconnected.) When landing, just for fun, I flew below the telephone lines while crossing the road. The considerable loss of time obliged us to make Poitiers by road.

On June 29, at 10:15 AM, I released from tow again and headed towards Bordeaux. The westerly wind was still strong and the clouds were small but good. I had to hurry because the sky was darkening to the north. Two hours later, I was near Angouleme at 6000 feet. The clouds stopped there and I was obliged to detour past Cognac, following the edges of the clouds in the hope of reaching Bordeaux. Although I reached 6500 feet over Cognac, I had to land along the bank of the Gironde when light rain started falling.

On the morning after, I took off from Jonzac at the same time as Rouchette, Bonnet and Mourrier. I quickly reached the Dordogne River, but, after St. Andre-de-Cubzac, the sky became clear and everything started to fall. Knowing I could reach Jurac Airfield, I kept going and found this invisible field thanks to a sailplane in the act of landing. However, at 1000 feet, small puffs of thermals pushed me up and I took the direction of Bordeaux. A factory chimney had started a smoking thermal and I found there a steady, perfumed lift which brought me up to 3000 feet. Five sailplanes were already on the field, and I made the sixth. The landing was greeted with enthusiastic cheers.

July 1st: third leg of the race. I took off too early from Leognan — the ceiling was only at 2300 feet. We now had to fly over bush country, and after 12 miles I saw myself "lessive sur le plat d'epinards" (literally: washed down on a plate of spinach) in a wilderness of bush and forest. Knowing the pitfalls of "Les Landes" — tree stumps masked by ferns — I decided to land in a fire trail, a strip cleared of vegetation. The width of this strip, edged by tall bushes and isolated pine trees, seemed less than the wingspan even from an altitude of 30 feet. However, I saw after landing that the strip was 50 feet wide (span of the AV.36:40 feet.) At any rate, the race seemed ended for me, being separated from a telephone by hours of hiking; at this point, a forest ranger came out of nowhere and offered me his bike so that I could get to the nearest telephone 4½ miles away. In spite of a lightning retrieve, two hours were lost.

I took off again from Leognan. During take-off, something fell against my shoulder and dropped to the bottom of the fuselage; it was the battery of the electric turn indicator. The ceiling had risen to 3600 feet and, in spite of a three-quarter headwind blowing at 20 to 25 mph, I managed to cover 43 miles in two hours, climbing at 6 to 20 ft./sec. and traveling at 75 to 80 mph. Ten miles before reaching the end of the bush, I met a mass of foggy maritime air; all lift stopped as the fog came down to the tree tops, a sickening sight. A large village in a hole in the fog was like a miracle, and a little corn field surrounded by electric cable like a dream airfield. The small wing landed there without causing any damage. One minute later, the field was completely flattened by enthusiastic



villagers. The most enthusiastic of all was the owner of the field. In the evening, the wing was trailered to La Bouhere Airfield, where I found Rouchette and Esnee who had landed at Mont-de-Marsan.

July 2nd: last day of the race. Meteorological conditions had become impossible. The eight pilots who had not reached Biarritz on July 1st were unable to make it. Like Esnee and Rouchette, I tried it, but was obliged to land in a fire trail that had only recently been cleared, with mounds of earth one foot high. The wing landed there without damage. In the afternoon, we were aero-towed to Biarritz. I released over Bayonne and enjoyed the glide over the "Silver Coast" before landing on Biarritz's Parme Airport.

NOW, IT'S EASY! by Frank Brame

We have all read of Barrie Jeffery's excellent goal flight which earned him Canada's No. 1 Gold C and single Diamond, and how this added yet another "first" to the achievements of the Gatineau Gliding Club. The story of our first Gold C will indeed be a classic in the history of gliding in this country, marking the coming of age of our efforts to reach a standard comparable to the best soaring flights in other countries. Like the breaking of all other barriers, once achieved, the act becomes commonplace. The following article tells of the first of these succeeding successes, and describes what we shall probably see much of during the next few years.

PHASE ONE (First Leg)

Albie Pow had given forth with glowing accounts of soaring conditions in Western Canada after his 256-mile flight from Swift Current, Saskatchewan to Ray, North Dakota in 1953, so he, Bill Duench, Gord Oates, Charlie Yeates and the author decided to attend the Western Canadian Contests during the second week in August in an attempt to collect a few Gold C's. Albie, Bill and I agreed to go out for a week's practise prior to the meet, while Gord chose to enter the Eastern Contests during that week while waiting for Charlie and their share of the ex-Bill Ivans 1-23, which was in the clutches of Jack Ames on his bid to retain his title of National Champion. Albie was to use a 1-26 that Paul Schweizer had loaned him, and Bill and I were to share our 1-23.

During the first half of that practise week at Regina, we were really disappointed in the conditions. Only on one occasion did we manage even weak dry thermal soaring, and the remainder of the time the wind blew at gale force. However, all this leisure time allowed us to study the weather and our maps, and to plot imaginary Gold and Diamond C flights, the most attractive of these being a 346-kilometer flight from Regina to Minot, N.D. It wasn't till Wednesday, August 3, that the weather map began to give us a little hope. Charlie Hunt and Johnny Junk, of the Airways weather office, pointed out the path of a cold front which was to pass through that evening, and forecast favorable conditions for next day. Albie and I then made known our dreamed-of goal, and Max McConnell, with his efficient publicity tricks, had the Press out at the crack of dawn on Thursday to interview "Ace" Pow. To quote Our Hero (from the Regina papers), "Given the right conditions, it would be possible to soar from Regina to Chicago." What a masterpiece of overstatement, after seeing nothing for five consecutive days!

Albie was airborne first, releasing in fairly weak lift under a cloud with base at 3000 feet several miles north of the field. I followed, and so that my distance would stand a chance of being technically as great as his if we both reached goal, I had to release in clear sky north of his cloud, glide back, and start from below him. We were off!

I was soon to learn that Albie has a preference for low-level operations. Several miles south of Regina, I found myself looking down on him as he struggled at an uncomfortably low altitude for so early in the day (10:45AM.). While waiting for him to regain height, I flew back to the city to make sure we were following the correct road south. On my return, Albie was not to be seen, so I shoved off on my own. I figured I had wasted the best part of three-quarters of an hour on this "disappearing buddy" act.

I pressed out along Saskatchewan Highway No. 33, determined to avoid getting too far below cloud base in attempting ambitious shortcuts. Forty miles southwest of Regina, I saw Albie ahead of me at cloudbase, which was now at 4000 feet. He wasn't waiting for me as I had hoped, but was just starting what I felt was an ambitious glide towards the small town of Francis. I decided against following him, and favored making this objective in dog-leg fashion so that I wouldn't lose much height. When I reached Albie's position at 4000 feet, he was spiraling, sweating it out in tight circles only a few hundred feet above the grain elevator roof tops. Now it was my turn to show him the backside of the 1-23 and this I did, with considerable satisfaction.

At Stoughton, 140 kilometers out, I was confident I wouldn't make any of my previous cross-country mistakes and, barring new ones (which are almost

inevitable in this sport), I was sure I would make Gold C distance, and maybe a Diamond. From here, I made a shortcut, departing from a pre-determined course that followed either road or railway. I could have been only five or seven miles over the wilderness when it struck me that the walk would be rather rugged if I were to miss a thermal, so I headed west to pick up the CNR. This was followed to a point about 200 kilometers from Regina where I lost my bearings and dropped fifteen minutes before pin-pointing my position and heading south.

CF-ZBR had covered 240 kilometers before I noticed that clouds on the course to Minot were getting very thin, though they were still quite good further to the southeast. Thinking of a Diamond, I decided against giving up my goal and striking out for distance, and was later to realize that this was the major mistake of the flight. The further south I went, the slower the going became, till the question arose as to whether or not the 300 kilometers would be covered. After some cautious flying, involving maximum glide angle stretches, Gold C distance passed below, and from here on it was a matter of picking up dry thermals only. These were extremely scarce, and a final decision was made to head down the Des Lacs River valley so that at least it would be possible to land near a 'phone. To have proceeded directly towards the presumed position of the airport would have meant flying low over rough coulees, and a five-mile walk to the nearest sign of civilization, not to mention the real problem of getting in the retrieving car and trailer.

At 5:00 P.M., in absolute calm, the flight came to an end in a harvested wheat field. It wasn't till darkness fell and the airport lights were turned on that the closeness of my goal became evident. There it was, just over a coulee, apparently no more than eight miles away! At 10:30 P.M., my crew — Bill Duench and Frank Park — arrived to drag the 1-23 home over 100 miles of good U.S. highway and 200 miles of the roughest Saskatchewan Commando course this side of the Burma Road. We had everything from the usual trailer light trouble to the ripping off of one tire, not to speak of the wear and tear on the glider. Still, it was worth it all to earn a Gold C leg, particularly when I heard that Albie had "blown out" back near Stoughton. Considerate fellow, he played his part well, and made my own effort appear as not too much of a cinch!

That, apart from the one cross-country I had during the contest, was the sum total of my worthwhile flying in the West. The remainder of the weather, particularly during Bill's days with the 1-23, was never too good. However, all the disappointment in Western soaring conditions was more than offset by the terrific hospitality of the Regina people and, in particular, by that mirage of cumulus clouds that stretched for over 300 miles during our drive back East.

To Be Continued

THE SURVOL TROPHY

This handsome silver cup will be awarded annually to the pilot making the longest flight in a Fauvel AV.36. For the year 1955, M. Charles Fauvel, originator of the competition, is adding two cash prizes of 30,000 and 15,000 francs. Any pilot holding a C certificate and having an AV.36 at his disposal is eligible, after registering with the Aeroclub de France, 6 rue Galilee, Paris, France. Registration fee is 80¢.

All flights made between Jan. 1 and Dec. 31 are eligible for this year's contest, provided the Aeroclub de France is informed within fifteen days. Pilots have a choice of straight line distance, out-and-return, or triangular course. Distance flown must exceed 62 miles. Should Eric Nessler's record of 286 miles fall, the first prize will be increased to 40,000 francs. Registration forms and complete regulations may be obtained from Georges Jacquemin.

With an English Accent....

NEWS & STORIES FROM BRITAIN

A BURN ROUND IN RUDOLF

by Cyril Ray

from "The Sunday Times" July 31, 1955

LASHAM, HANTS.

UNTIL TODAY, my experience of gliding had been limited to an apprehensive ride across the North Sea, towed all the way, sitting in a glider-borne jeep. That was in the course of a warlike operation: the keynote of my second glider ride, today, was peace. Once my pilot had cast off from the towing aircraft, and we had leaned away, in our two-seater glider, "Rudolf," across the bosky, bountiful Hampshire countryside, the only noise was that of the balmy wind that slid past the little open windows in the plastic hood. This, compared with power-propelled flight, was horse-back exercise as against motor-cars, sail as against steam. The quality of a great glider pilot (such a one as Philip Wills, for instance, well ahead, as usual, in the National Championships here) is that he is weather-wise in the way that a fore-and-aft sailor is, rather than supremely mechanically-minded as a Donald Campbell must be.

But I should have written, not "cast off from the towing aircraft," but "pulled the plug." Glider enthusiasts are developing a picturesque jargon peculiar to the sport, derived only partly from the Royal Air Force. My invitation to a flight in the glider "Rudolf" was expressed in terms of "Would you care for a burn round?" and the pilot used a different phrase for the same thing when he talked of "having a stir."What power pilots call the "stick" (in the very early days of flying, it was the "joy-stick"), glider folk call the "pole," and the weather "clamps" or even "clags" when it turns unsuitable for gliding – as it did yesterday, when overcast skies prevented the sun's warming-up of ploughed fields and village brick to provide the upward thermal currents upon which gliders soar.

This is to use "clamp" as an intransitive verb. Among the championship competitors hanging around today, waiting for clearer skies, there were those pedants who recognized it only as a noun. No, no, they said, a clamp is a piece either of ground or of air unsuitable for gliders and gliding. But another word for a piece of unsuitable ground is a "claptrap" defined for me in the bar by a glider pilot who clearly knew all too well what he was talking about as, "a small field unsuitable for landing, in which you have to land." A pregnant line in one of the glider club songs is, "Why did you go and prang it in a claptrap?"

What is a gadget to some, and to others, more transatlantically-minded, a gimmick, to men and women here is a panacea. I didn't care to ask the purists what they thought of its being used as a verb: there is a song that sings of engineers panaceaing the tow-car. (Which reminds me of the Civil Servant who complained in a memorandum about "all this ad-hocking.")

There is tremendous enthusiasm here for this most appealing of sports . . . a game that calls for skill and ingenuity and country-lore and weather-wisdom; at which (as in show-jumping) women can compete on equal terms with men and, it may be, have better "hands"; which is purely amateur, and in which there are no class distinctions. (There is a highly popular team here from the RAF Gliding and Soaring Club . . . a corporal is the outstanding pilot and an air-commodore is doing the camp cooking.)

One last thing that pleased and impressed me personally is that the pilots know where they are going to, and where they have come back from. Days after the warlike operation I referred to in my first paragraph, I came across the American pilot who had towed me across the North Sea, now shooting a line to a bunch of blondes in a Brussels bar: "Yeah, baby, just back from Poland."

I touched him on the shoulder and said, gently, "Holland, Hank; Holland," and Hank waved a bonhomous hand and cried, "Poland, Holland; Holland, Poland. What the hell, bud, what's the difference?"

HIGH FLYING

by Tony Deane-Drummond

from "The Lasham Newsletter" September 1955

THIS SUMMER HAS SHOWN THE VALUE of cloud flying and on some days it was virtually the only way of staying aloft. In a glider like an Olympia or Skylark it is not difficult and is perfectly safe – even for those who have done all their flying in gliders and have not had the benefit of a power course on instruments.

The first essential is to get the principles sorted out in your head on the ground. One of the best articles written on this subject was by Tony Goodhart in GLIDING (Winter 1952-53) and I do not propose to repeat his advice here. A member of the Army Club read this article and a few months later took the Grunau up to 9,000 feet on his first attempt at cloud flying. I was not slow to congratulate.

The next essential is to make sure that the glider's instruments are serviceable for flying in wet and icing conditions. The turn and slip batteries must be reasonably fresh (if you are lucky and have a horizon the batteries must be charged). The variometer must be equipped with a water trap, if it has a total energy venturi, and a means of venting it to cockpit pressure. The ASI should be connected to the "pot" or nose pitot. If the static tube of the ASI is connected to the static head, another tap or vent will be needed.

With the best will in the world, the unexperienced pilot is most unlikely to succeed in cloud flying unless turn and slip, variometer and ASI are guaranteed to continue working. Total energy heads, pitot and static tubes of the normal types all ice up or suck water down in to the instruments and are quite useless for cloud flying. An iced-up ASI (or even altimeter if connected to static and above oxygen level) can be very dangerous and give misleading advice. It is my personal opinion that a glider C of A should not be endorsed for cloud flying unless the basic instruments can continue to work in wet or icing conditions.

Having mastered the technique (in theory) and checked that the glider is serviceable, the next thing is to try it out. I will here concentrate on a few do's and don'ts and some likely troubles you may meet.

A few minutes before you enter cloud, switch on the turn and slip and let it steady down. As you circle up to cloud base, take a very good look round and make sure no other glider is above or immediately below you. I need hardly say that you must NEVER enter a cloud which you know already holds a glider.

It is quite essential for the beginner to make certain that he is getting lift all the way round the circle before entering the cloud. If necessary, fly about under cloud base until you have centered correctly. If you cannot get steady lift all the way round, it is probably better to try another cloud.

The next essential is not to turn too steeply. The turn needle should be about half way between the centre point and the stop, and it must be kept there by firm use of the ailerons. Steep turns will almost certainly lead to spiral dives, which is the most common fault with beginners.

It is fairly probable that sooner or later you will stall the glider, followed by a dive to regain speed. To recover, it is best first to get the glider flying straight on the turn indicator and then stop the swoops up and down. Remember the ASI has considerable lag. The best advice here is to steady the airspeed to a higher than normal speed – say ten to fifteen knots more – and then gradually reduce it.

Sooner or later you will want to fly straight out of the cloud and a lot of time can be wasted doing this apparently simple manoeuvre. You should know what course you want to fly before entering cloud. The simplest method is to straighten out and see what the compass reads after it has settled down. Then turn on to the desired course by allowing (say) seven seconds of turn for each 90 degrees required. The Cook compass is a great help here.

In my experience, most clouds are not very turbulent. The upcurrents of air are bigger and therefore steadier than below cloud. Naturally, if you charge round the cloud in a series of giant switchbacks it will seem turbulent – but don't blame the cloud.

Finally, remember that most people need oxygen to live above 15,000 feet and use your dive brakes if the airspeed rises to more than twice stalling speed.

▲ ▲ ▲

On July 14, Derek Piggott, CF1 at Lasham, soared to the greatest height yet reached in a sailplane in Britain. His climb in a cu-nim ended at 20,000 feet and his glider, a Skylark II, suffered considerable damage from hail and lightning.

BARNSTORMING AT BELA CRKVA

by Frank Irving

from "The Lasham Newsletter" September 1955

"TOMORROW," SAID PAJA CRNJANSKI, "there is a display at Bela Crkva. There is also a lake for swimming. Would you like to go?" We said we would, and suggested taking the Skylark to the display. "Ah, for the aerobations!" said Paja.

Franc Mordej pointed to Bela Crkva on the map. "There is the town. There is the river, which is the border of Roomoonia.* The aerodrome is here, between the town and the river. You must do a small circuit! It is not dangerous . . . but there might be a Note." Clearly, a Note from Rumania to Belgrade protesting at a frontier visitation by a Russian designed aeroplane flown by a Yugoslav towing a British glider would lead to fearful international confusions, so we resolved to keep firmly over the aerodrome.

After lunch, part of the Imperial College expedition departed to Bela Crkva by bus, whilst outside the hangar there assembled two PO-2's, one Bucker Jungmann and the Skylark. The aerodrome was mostly waterlogged, and to get to the dry take-off patch, the Skylark was towed out by the PO-2 with a young Yugoslav trotting at the wingtip. F.G.I. sat in comparative comfort in the back seat of the PO-2, wondering why the Skylark didn't take off in the slipstream, whilst the chap at the wingtip wallowed through the mud. Finally, we got sorted out for the take-off, with Franc Mordej flying the PO-2, Paul Langston in the back seat and F.G.I. in the Skylark. It should be said at this point that the PO-2, locally termed the Podwa, represents a pretty basic form of aviation. It is quite a big biplane, of Russian design. This particular specimen was thought to be of 1928 vintage, and certainly looked it. The engine is a 5-cylinder radial, of a dubious 120 hp, with three single exhaust pipes and one twin. At tick-over, it goes "pop-pop-pop-bang," etc. Max. revs are 1700, when the pops and bangs become earsplitting. The control cables hang in great catenaries along the fuselage, but it all works surprisingly well and seems very reliable.

However, there I was at Bela Crkva, after landing on what looked the smoothest bit of a very rough airfield. Parked on one side of the field were the aeroplanes from Vrsac, two local gliders and one of the Vrsac Olympias, surrounded by a vast throng of townsfolk, soldiers, children and dogs. From a gap in the crowd darted a small blue vehicle driven by a happy character whose greeting was: "Hello! Goodbye!" The car was a little Fiat truck, clearly the first ever made. The driver gave a cheerful, golden-toothy grin and rummaged in the back until a piece of cable came to hand. When fully unravelled, with the Skylark attached, the nose was about six inches from the car's tailboard, so John Hatfield was caused to sit in the back without shoes, pushing on the glider's nose with both feet. The Skylark joined the Olympia, miraculously intact, and the Engleski rapidly became the centre of attention. The crowd was quite big (one reliable estimate said 5000. Compare with attendance at National Champs – and all from one little town), very cheerful and well-behaved, and relatively careful in their approach to the gliders.

After some preliminaries with model aeroplanes, and a couple of winch launches by the local gliding club, one PO-2 took the air. A trapeze was unwound below the undercarriage, from which a gentleman hung by his teeth, waving a Yugoslavian flag the while. The gliders were towed out, not by the Fiat horror, but by a big pre-war German saloon, whose driver was very proud: "Excellent engine – no water!" We agreed that it must indeed be excellent to survive such treatment, and complimented the driver on his fluency in English. "Yes, in Novi Sad, I work two years ago with two English. From 'Uddersfield. In 'Uddersfield, I think big tractory factor, yes? Davidbrown. Very good tractors; everywhere we are drinking." Clearly, many a tale could be told about the contribution of the gentlemen from Huddersfield to Britain's export drive, but by then we had arrived at the launching point. Franc Mordej was already on tow in the Olympia, and we were ready to go. A final briefing from one of the locals, in a quaint mixture of German and English, was devoted to the proximity of Roomoonia.

I had briefed the PO-2 pilot to climb to 600 meters and then dive gently to a speed of 120 kph so that I could do the usual loop after release. Unfortunately, I had failed to take in to account the immense depth consumed by a PO-2 in accel-

* In Yugoslavia, Rumania is spelt Rumunija and pronounced Roomoonia.

erating from 80 to 120 kph, and when the pilot finally turned round with a rather reproachful glance, we were at 1200 feet and he had obviously given up all hope of going faster. I pulled the plug, and got on with it. By this time, Mordej was on the ground, but the gentleman who hung by his teeth was still doing so, and the beat-up had to be carefully adjusted to avoid his incessant fly-pasts.

After the gliding, there was a parachute jump and a display of aerobatics by Saradic in the Jungmann (he was one of the ground crew at Camphill.) This was really superb, Farnborough standard stuff, including an inverted circuit of the aerodrome with perfect inverted turns at the corners.

The display over, pilots and hangers-on retired to a barn on the side of the airfield, which contained the local gliders and a long table provided with glasses and bottles of a sinister bright green fluid. Glasses were filled. The health of the pilots was toasted. The Engleski were toasted, and that finished the green fluid, which was quite a palatable peppermint. Flagons of wine then appeared and the pilots, thinking of the flight to Vrsac, took refuge in the local habit of diluting wine with soda.

After some discussion, the final order of departure was Mordej and Irving in one PO-2, towing Paul Minton in the Olympia whilst a Vrsac instructor took the Skylark. John Hatfield went in the Jungmann.

Mordej: "You will fly the PO-2 to Vrsac."

Irving: "But I am not a pilot of motor-planes."

Mordej: "It does not matter. I will do the start and the first turning. Then I will make a sign and you will fly. The rudder is very strong, 20 kilograms. The ailerons, not so strong, 5 kilograms. But you will see."

We took off, after one of the most meticulous cockpit checks I have ever seen, and half way round a rather low turn (to dodge the dreaded Roomoonians), it was made apparent that Irving was supposed to be driving. The rudder was indeed "very strong" since the Russian designer had failed to offset the fin to counteract the torque, and the remainder of the turn was less than perfect. However, we were eventually pointing towards the castellated hill at Vrsac, and droned gently onwards in the calm of a perfect evening, with the Danube valley stretching to the horizon on our left. Halfway back, the Jungmann suddenly appeared, and formated first on the PO-2 and then on the Olympia, before rapidly overtaking us.

We landed at Vrsac, feeling that it had been a day well spent. Not only had we had plenty of fun, but we had peered over the Iron Curtain and had probably been the first to perform "aerobations" in a British glider in Yugoslavia.

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A former soaring pilot who took part in the Astronautical Congress at Copenhagen, was Mr. Henry J. White, of the U.S. Navy, who has been in aviation almost since it began. He had much to say about the Nelson Hummingbird, which is designed for soaring flight and has a motor and airscrew which can be stowed inside, out of the airstream, when not in use.

Mr. White was most enthusiastic about this machine, after having made one flight in it on a day when there were, unfortunately, no thermals and soaring was impossible. He climbed with the engine to an inversion at 5000 feet, switched it off (the engine, not the inversion), and glided down to 1000 feet, whereupon he had to use the engine again to reach his landing field. As a result of this flight, Mr. White is convinced that this type of machine is the answer to the problem of persuading great numbers of people to take up soaring.

I asked him what he would do if he saw a fine-looking cumulus cloud, in the distance, just out of reach. Would he waste time scrabbling about in an attempt to gain enough height to glide to it, or would he do the "sensible" thing and turn on the engine, so as to make sure of getting to it before the lift petered out? His reply was that it takes at least 14 seconds to get the engine out again, and more time to restart it – implying that nobody would want to go to all that trouble.

The fact remains that if it is irrational to object to taking off with an engine, it is equally irrational to object to using it in order to reach a cumulus cloud. And why does one want to reach the cloud? In order to gain enough height in it for gliding to a second cloud. But why not go straight to the second cloud with the engine and ensure getting there before it disintegrates, instead of irrationally wasting time searching for lift in the first cloud? And so on.

The Aeroplane, September 23" 1955 DR. A. E. SLATER

DINING WITH DAMBACH By Pete Stickland

Of all the club bulletins to come our way, and quite a few do, one stands out as being most readable, highly palatable, and easily digestible. Its name is *Wurtsboro Thermal.* Its editor, Gretchen Dambach, lives in Brooklyn (amend that title to read *Woitsboro Thoimal.)* She writes in a racy, conversational manner of the guys and dolls inhabiting her particular glider club, the Metropolitan Airhoppers Soaring Association. The way this gal tells it, her characters really come alive—and do they ever *live!* Realistically Runyonesque, they flood the pages of the *Thoimal* with a zestful *joi de vivre.* There's Gus, sinister and bearded, who works in a broomstick factory. There's Dave, who drives to the field in a leather-lined Cadillac and donates another glider to the club whenever he feels he isn't pulling his weight. There's Steve, who flies a 1-23 and flies it well, who is cultivating a Colonna mustache, and whose chicken barbecues are out of this world....

Say, that's it! That's what makes these people so real, so alive, so *human.* They eat! And I don't mean just plain eat, either. They guzzle. They gobble. They gormandize. They are gourmets. They are gluttons. They are gastronomes. They are without a doubt the gullet-chokingest, gut-bustingest glider-guiders who ever glutted. And the gals are as bad as the guys—worse, maybe. Imagine a galaxy of gorgeous gorgers sitting down to a spread of ninety-six lobsters, pre-cooked, packed in ice, and flown by Tri-Pacer from Joisey to Woitsboro. The noive of them dames!

Picture this charming domestic scene. It is evening. The Editor of *Free Flight* is home from work, in his usual perch—hunched over the typewriter. He is reading the *Thoimal,* hoping to find some extra-special tidbit for the next issue of his magazine, which should have been out two weeks ago. Rapidly, he scans the pages. Bennis.... Potter.... 1-23.... Hummingbird.... Hmmmm.... Suddenly, his eyeballs bug from their sockets, his hands clench, and an agonized shriek breaks from his lips to startle window-shoppers on Eglinton Avenue. He has come across this: "Barbecue was the best this year – thick, tender steak, onions, beans, even the baked potatoes were delicious. Gottfried contributed beer for no particular reason, and Rudy came up with a fine bottle of sparkling Burgundy."

At this moment, up comes Wifey with the Editor's supper—two wispy, shriveled-up crackers, a minute section of cheese, and a cup of weak tea. The effect is dynamic, electric, and definitely not conducive to matrimonial bliss. The tray is snatched from Wifey's hands and goes skimming through the window, pre-shattered by a hunger-maddened bellow: "To hell with your bloody mouse food!" The door slams, and the Editor is on his way to Stefoff's. Half an hour later, Mouse Stickland is furtively striking matches in the drive, searching for two rather bent crackers and a piece of gravel-riddled cheese. To eat at Stefoff's takes lotsa monya....

▲▲▲

THE MINEO M-5 SAILPLANE *(continued from Page 15)* and no welding was required for assembly. In fact, only two fittings were welded (at the wing spar roots.) The empennage was extremely light (elevator plus rudder: 3.3 lbs.) and shaped more for weight-saving purposes than all out aerodynamic efficiency.

It is not possible to estimate exactly the cost of building such a sailplane nowadays. However, here is an approximation based on the AV.36, which costs about $900 to build in Canada and weighs 240 lbs. on the average. This is $3.75 per pound. Thus, the M-5 would cost about $360. This is a very nice price, but the following points must be kept in mind: the low ULF; the impossibility of carrying a parachute if the pilot is not of small size; the flight restrictions which must be imposed on such a light machine. On the other hand, with its low speed and low rate of sink, such a sailplane may be a very interesting machine to fly in many circumstances where present day sailplanes are handicapped by dull aerologic conditions – provided there is a jockey-sized pilot around.

CHARACTERISTICS:

Span	41 ft.
Wing area	134 sq.ft.
Empty weight	96 lbs.
Pilot weight	146 lbs.
Gross weight	242 lbs.
Wing loading	1.8 ppsf.
Ultimate load factor	5.0
Aspect ratio	13
Gliding ratio	21.2
Min. sink (30 mph)	1.98 fps
Cruising speed	about 40 mph

ADVENTURES OF SUPERCLOT

by Pete Stickland

6) SUPERCLOT'S FIRST NATIONAL – PART I

The Wheat Has Ears

SOCIALLY, THE SIXTH CANADIAN NATIONAL Soaring Meet of 1954 was a disappointing affair. The two major aircraft companies who number among their employes many of Eastern Canada's topnotch glider pilots, had arranged their annual vacation for opposing weeks, making a combined meet undesirable. The Breslau Section, as far as personnel went, would be no different from any weekend get-together of the three local groups: Toronto Gliding Club, Waterloo-Wellington Soaring Council, and Hamilton's Four-Soaring Club.

One of the major thrills of any soaring contest, as Superclot knew, was to watch the cars and trailers arriving from distant parts. From Ottawa and Kingston they came; from Montreal, Sherbrooke, Quebec and other outlandish regions where English is seldom heard. The travel-weary crew members would bail out, and stretch, and yawn, and renew old acquaintances from the year before, while the glider they had fussed and fretted over through long hours sat unheeded on its trailer. Slowly, a dribble of other-pilots and other-crews would cluster about the new arrival, discussing performance, inspecting wing fittings and prodding fabric. Then the crew chief would say "Let's set her up," and a space would be cleared on the airport apron as the wings were taken from the trailer, and laid on the tarmac, and the fuselage rolled between them, while unwilling helpers watched and cameras clicked and small boys were shooed from the pitot head.

Superclot was going to miss the friendly informality of this pre-contest gathering-of-the-clans, and the subsequent bull sessions in the Flying Club lounge. But his disappointment was outweighed by an eager sense of anticipation. At last year's contest, he had been a spectator. This year, he had graduated; this year, he was A Contestant. It may have been Canada's Sixth National . . . it was Superclot's FIRST. Only three other contestants were to stay the full contest period of seven days: Frank Brame in his 1-23, Bill Duench in his Lawrence, and Jack Ames in TGC's flattop LK. Superclot, weighing up the opposition, figured he stood a pretty fair chance of finishing fourth.

He started off with a handicap. Jack Ames had borrowed three parachutes for the three TGC contestants. One was for Superclot. Superclot had never worn a 'chute before. It was a seat-type 'chute, bulky and uncomfortable. Superclot's first mistake was to try it on, make the necessary adjustments, and then attempt to climb aboard the Loudon without removing it. He waddled to his ship with all the grace of a pregnant camel, raised himself on the cockpit coaming, and fell in, luckily without breaking anything, to find himself sprawled in a hopeless confusion of straps and belts. With a crew member's help, it took him less than half an hour to get sorted out, and when the canopy was finally closed, he was gratified to find he still had an eighth of an inch of headroom.

Superclot took off to join the gang upstairs. There were four sailplanes wheeling in a thermal as he went in at the bottom of the stack and set about reaching the top. He caught and outclimbed the Lawrence, and thought he was doing well till he remembered the Lawrence was nearly a quarter of a ton heavier – "built like a brick outhouse", as Bill Duench put it. Try as he might, he couldn't come anywhere near the others. Frank Brame got away early, the Lawrence, unobserved, dipped down to land back at the airport, one of the LK's disappeared, and, half an hour after release, Superclot found himself still too low to break away, waltzing in a skimpy thermal with a silver LK hanging 500 feet above him; Glenn Lockhard or Charlie Yeates making a non-contest try-out of their newly bought ship. The LK banked steeply and he caught sight of a bubble canopy as the flat-top circled. It was Jack Ames! Superclot felt a lot happier. At least he was doing almost as well as one of the experts. At least he had half an hour of his five recorded on a barograph in case he had to land in open country without witnesses. The barograph . . . . !

Superclot suddenly realized the barograph had been forgotten in his preoccupation with the 'chute. How to turn it on? The instrument was strapped to the back of his seat on the right. He flew left-handed and slid his right hand behind him. He touched the barograph casing and twisted his arm almost to breaking point, but the lever was out of reach. The Loudon lurched wildly and Superclot quickly changed hands to bring the glider back on an even keel. He tried again, a quickie this time, leaning far back and making clawing motions behind the seat. Still no luck. This was a hell of a note! His first contest flight, and no barograph! Suppose he made his five hours and couldn't prove it? Or a Gold C climb yet? Almost beside himself at the thought, he tried a different tack, flying normally with his right hand while he thrust his left hand under his right armpit in a last desperate effort to reach the lever. Just as he thought it was hopeless, a groping fingertip touched the lever and he subsided happily as an unfamiliar ticking broke the silence.

At 4000 feet, Superclot circled over Lake Puslinch. When the wind blew down the Niagara peninsula, as it was doing today, the lake-with-the-funny-name served as a danger signal. "You're flying too far downwind", it said, and its waters glinted menacingly. He had never been beyond the lake. Until today, he hadn't even approached the near shore. Now he flew over the dead center of Lake Puslinch, marveling at the clear blue-green of the water, watching a small sailboat cutting across the smooth surface. "Quite obviously," thought Superclot, "that sailboat owner washes his sails with Rinso. They're whiter, brighter than new " He turned his back on the airport and set off for Fort Erie.

Jack Ames appeared again, a little higher and a little further ahead. The LK was flying straight, and to Superclot in the Loudon it appeared to be climbing as it penetrated for the next thermal. Superclot began to wonder idly when the next thermal would appear. There were plenty of clouds and it was only a matter of time, of course, but just the same there was nothing like meeting a thermal with lots of height in hand. He steered for a big cloud and waited for the jolt. At 2500 feet, the disturbing possibility crossed his mind that perhaps he wouldn't hit another thermal. At 2000 feet, the red ball was still up and showed no sign of falling. Jack Ames had vanished. Superclot twisted and turned, striving for a glimpse of the silver LK. "If only you had followed me," Jack said later, "I was going up like a rocket!" "And I was going down like a bomb," thought Superclot. He didn't tell Jack he had almost dislocated his neck trying to find him.

Superclot was in a bad way. He was at 1500 feet. Without lift, the flight was doomed to end in one of the fields that cloaked the rolling country beneath him. Mount Hope airport was in sight, but out of reach. The Loudon sank, and Superclot's heart sank with it, and at 1000 feet he picked out a field and prepared to land. The field he had chosen was a small, square hayfield and – by George! it *was* small. Now that he was lower he could see disadvantages that had escaped him before. Apart from its size, the field was grotesquely crumpled. The fence bordering it, making a valiant effort to follow the warped contours, resembled a row of pretzels. The hayfield itself had more curves than the movie actress of the same name (Rita Hayfield.)

Superclot made a lightning decision. He wouldn't land in the field. He knew it was wrong to change his mind about a landing place, but he still had 800 feet under him, and the field really was impossible. He now faced another lightning decision – which field to choose? He flew back and forth in mounting panic. The second lightning decision took so long, he lost several hundred feet and barely had time to flit across the road to land in the longest, largest, most level field he could see, without paying too much attention as to what the field contained. In the single hurried glance he bestowed on it, he thought it was long grass, bowing in the wind. But when it was too late to do anything about it, he discovered his mistake. The Loudon flopped in to chest-high wheat, slewing as the wings flailed the tall stalks, and the skid scooped a curving rut from the soft brown earth.

Superclot climbed out, watching warily for an irate figure with a shotgun. He felt a tingle of excitement. This was like frontier days, when the natives were taken to be hostile until they proved themselves otherwise. He could see at once that the retrieve would be a piece of cake. The Loudon had settled almost at the head of a shallow drainage gully that cut through the wheat directly to the fence bordering the road. It would be a simple matter to take the parts of the dismantled glider along the gully and lift them over the fence on to the trailer parked at the

roadside. Superclot lost no time putting in a 'phone call to the airport and was soon back at the Loudon. He removed the rudder and tailplane and carried them with the parachute to the far side of the road, where he discovered a large, level pasture, an ideal landing site that he had not noticed from the air.

He laid the parts down carefully and sat in the sun and waited, and watched the cumuli form, and swell, and sail majestically down the peninsula, and he wondered why it was he couldn't be under one of them, sailing majestically to his goal at Fort Erie. He wondered how Jack Ames was doing, and cursed as the towering cloud galleons moved in line astern to the horizon. "Flat bottoms and cauliflower tops," mused Superclot, "just the job." He had landed at two o'clock, the best part of the day. As far as he could tell from the map, he had covered 31 miles, downhill.

Superclot began to feel drowsy in the heat. There was little traffic on the road and he decided it was safe to take a nap while waiting for his friends to show up with the trailer. He laid the parachute pack on the grass. On one side of it, he placed the rudder; on the other side, the tailplane. Then he sprawled on his improvised pallet and dozed off. He was awakened by the screech of brakes. He lay still, without opening his eyes, as his tired brain struggled to consciousness, trying to focus on the voices that hovered over him.

"Is he dead?" asked Voice One.

"Kick him in the ribs and see," suggested Voice Two.

"What?" gasped Superclot, opening his eyes.

"He ain't dead," said Voice One, making no effort to hide his disappointment.

"True," said Superclot, "who are you?"

"We saw the wreckage . . . " began Voice Two.

"WRECKAGE!!" shrieked Superclot, leaping to his feet and looking all around, thinking that a greasepot from Mount Hope had piled in, "Where?"

"Over there," said the owner of Voice Two, pointing to the Loudon, whose wing and fin protruded from the undulating wheat.

"That's not wreckage," said Superclot, "that's a glider! That's my ship you're insulting!"

But the men were leaving, climbing in to their panel truck.

"I could have sworn he was dead," said Voice One.

Superclot's only other visitor was a boy on a bicycle who came from a nearby farm to view the Loudon. Superclot was beginning to feel hungry. Unwilling to leave the glider, he tried to talk the boy in to bringing him food. He rustled dollar bills in his pocket to prove he had money. But the lad had never lived in Toronto, so his eyes didn't light up at the sound. He rode away, whistling cheerfully, leaving Superclot to starve by the wayside.

At seven o'clock, after five hot, hungry hours, Superclot decided it was time to eat.He hid the glider parts behind a hedge, shouldered the parachute, and set off for a farmhouse half a mile up the road, having found out from his young friend that this particular farmhouse had nothing to do with the wheat field in which he had landed. The farmer was sitting outside, and smiled a greeting as one famished glider pilot staggered up the drive. Superclot, so ravenous he could hardly speak, asked the farmer if he had any hot cookies and was immediately introduced to the farmer's two shapely daughters. However, they were shaped like girls, not like gliders or food, so Superclot paid them no attention. He was invited in to the kitchen, where he collapsed in to a chair, while the girls set about preparing food.

As his gaze wandered about the antiquated farm kitchen, Superclot's eye fell on a tiny piglet, housed in a basket on the untidy floor. The girls gave him the story. It was the sad case of an old sow who had too many children and didn't know what to do. Whenever Momma Sow sounded the call "Chow up! Come and swig it!" seven snorting piglets raced for six inviting nipples. The first day, Little Joe was odd man out . . . every inch of space under the old sow's belly was filled with greedily sucking piglets. Each time he tried to push his way in, his brothers elbowed him out again. "Who is dis guy, fellers? Quit pushin' us around, kid, we're udderwise engaged."

Vainly, the little pig burrowed in the squirming mass. No matter where he dug, there was no dug for him . . . not a ruddy pap in sight. Meatless Monday was followed by Teatless Tuesday, and still the little piggy had none. He must have felt like an undersized, underfed commuter trying to board a Toronto streetcar during rush hour.

At last, he was rescued from his plight, and to the litter on the kitchen floor

was added a one-pig litter in a special litter box. He became a hand-reared, pampered pig, living high on the hog on a diet of pablum. "Let 'em keep their ole sow juice," he seemed to say, hitting the bottle lustily, "this is the (hic) stuff for me!"

The girls were making meat loaf sandwiches. The fodder was prepared under ideal hygienic conditions. Every now and then, one of the girls would break off to pet the piglet, who nuzzled his snout lovingly in to her hand, entranced by the aroma of Meat Loaf 4711. (No doubt he had relatives in the business.) Then the girl would return to the table and continue slapping sandwiches together. The job took so long, Superclot even considered tossing the piglet, squealing, between two slices of bread for a hastily improvised hot pork sandwich. But at last the food was ready. The first sandwich was gone in two gulps, and was followed by a long, cool draught of milk. Superclot was reaching for another sandwich when the farmer's son ran in to tell him the trailer had come.

Grabbing food, drink and parachute, Superclot ran for the field and arrived panting to find three men already at work on the glider. Frank Woodward was leading the attack on the Loudon's wings, and as Superclot drew nearer, he could tell the club president didn't get his red face from being out in the sun all day. Frank's temper was at boiling point. He let Superclot creep well within range, then he blew like a miniature H-bomb. Superclot, temporarily deafened, caught enough words to make sense. "....Stupid place to land....whe at damage....hundreds of dollars...."

As soon as the rumbling subsided, Superclot started explaining how to evacuate the Loudon with the minimum of damage. But nobody was listening. Superclot's Idea was ignored, simply because it was Superclot's Idea, and the Woodward Master Plan, an infinitely more complicated scheme destined to triple the damage, was put in operation. The Loudon was taken apart, and the wings and fuselage were carried and dragged to the edge of the wheat field, away from the road. The distance was short, but the wheat was thick. There was no convenient gully along which to move, and a lot of wheat was flattened in the melee.

A gate opened on another field. The retrieving party paused, calf-deep in string beans. There was no road here, so the trailer had to be towed in through the string beans. This didn't do the string beans much good. The car and trailer came to a stop, chiefly because a fence blocked their path. It was thought to be too difficult to back the loaded trailer the way it had come, so the car and trailer had to be turned around. There was no place to turn the car and trailer except in the string beans, so they were turned in the string beans. This operation was carried out with the utmost care and only about one quarter of the crop was destroyed. On the return trip, the car kept to the furrows as much as possible but at last had to cross them to reach the farmyard and more string beans became has-beens. By an incredible stroke of good fortune, the farmer and his family were away on vacation. "We had better leave a note," said Honest Frank Woodward. Superclot found pencil and paper and wrote a message to the absent farmer as Frank dictated. "...Any claim for damages should be addressed to the Toronto Gliding Club," the note ended. It even gave the address to which the claim should be addressed. "That's it," said Honest Frank Woodward, reading the note over, "Now attach it to the door in such a manner that it is bound to blow away on the gentlest zephyr."

At the airport that night, Superclot heard news of his two rivals. Jack Ames had reached his Fort Erie goal, 84 miles from Breslau. Frank Brame, also goaling for Fort Erie, had flown the same distance but had landed on Grand Island. Next morning, as he entered the hangar, Superclot was stopped by a sight few can resist: his own name in print. A large blackboard announced the contest standings at the end of the first day. A group of spectators partially blocked his view, but as Superclot rudely started to elbow his way to the front, both moved away, and he read:

CONTEST RESULTS – FIRST DAY

Jack Ames	137
Frank Brame	114
Superclot	42

It was anybody's National!

(Next issue: PART II – How Green Was My Oatfield.)

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I understand that I may include my own subscription in this offer.

Signed ..... Date .....195..

Name ..... Address .....

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Name..... Address .....

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Name..... Address .....

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FAI CERTIFICATES

DIAMOND FOR GOAL FLIGHT

JEFFERY, Barrie 201

GOLD C's

JEFFERY, Barrie 1
BRAME, Frank 2

GOLD C LEGS (Distance)

POW, Albert

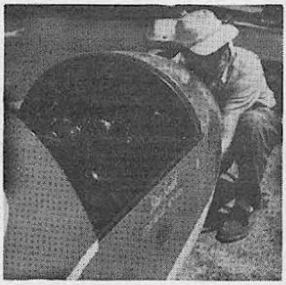
SILVER C's

BOUDREAULT, Ovila..... 1
JEFFERY, Barrie 2
DURE, John 3
HENSHAW, Herbert..... 4
CURRAN, William 5
BRAME, Frank 6
POW, Albert 7
HOLMAN, Don 8
AMES, Jack..... 9
RYS, Stan 10
SHAW, Peter..... 11
HICKS, Gordon 12
AGNEW, John 13
DUENCH, William 14
PEPPER, Albert..... 15
GLEN, Stuart 16
YEATES, Charles 17
SMITH, Elvie 18
RIDDELL, William 19

CANADIAN SOARING RECORDS

Distance	256 miles	POW	(Lawrence)	1953	Swift Current, Sask. to Ray, N.D., U.S.A.
Distance to Goal	196 miles	JEFFERY	(Olympia)	1955	Carp, Ont. to Windsor Mills, P.Q.
Distance: Goal & Ret	120 miles	BRAME	(1-23)	1954	Breslau, Ont. to St. Thomas, Ont. & return
Absolute Altitude	16475 feet	BRAME	(Cinema)	1955	El Mirage, Calif. U.S.A.
Altitude Gained	12615 feet	BRAME	(Cinema)	1955	El Mirage, Calif. U.S.A.
Duration	8:04	DURE	(Grunau)	1949	Kingsmere, P.Q.
Speed	.....				No record established

At the SEVENTH NATIONALS



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