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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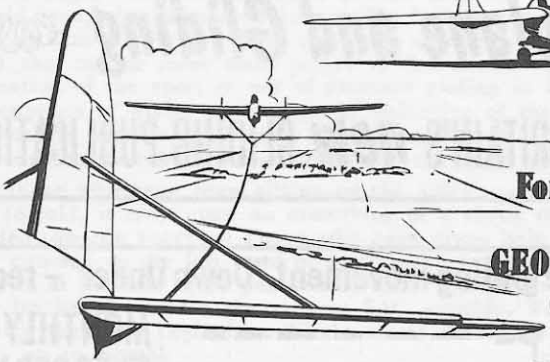

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*ULTIMATE LOAD FACTOR = 12

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.

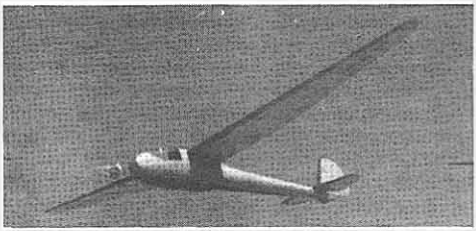
SWITZERLAND: A new high performance sailplane has been built in Switzerland, the Elfe PM.3, designed by Dr. W. Pfenninger, A. Markwalder and W. Nicole and built in 8000 hours by the sailplane constructor R. Sagesser. It took part in the French National Soaring Championships. It has a wingspan of 52½ 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:

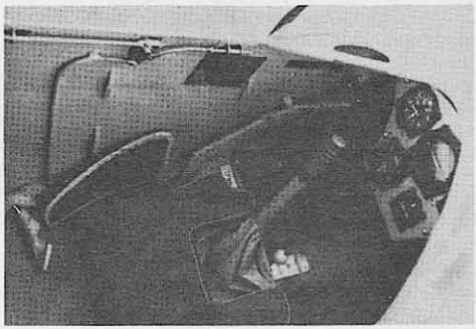
Speed (mph)	Sink (fps)	L/D
62.1	2.3	39.5:1
80.7	4.1	29.0:1

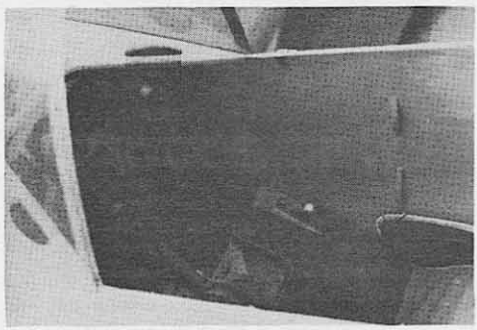
On April 15, Hans Nietlispach and Werner Schatzmann set a new Swiss two-place goal record by flying a Kranich II 217 miles from Berne to St. Gervais, France in 4½ hours for an average speed of 48.2 mph. Four days later, A. Kuhn and J. Strickler set a new Swiss duration record with a flight lasting 24:14. 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.

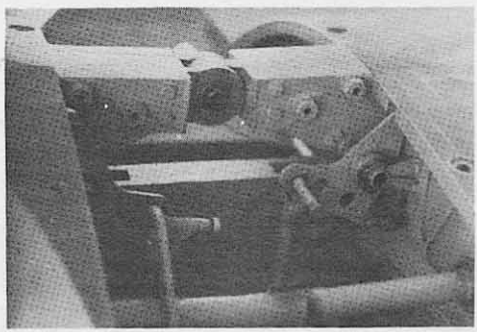
A SPANISH CREATION

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.

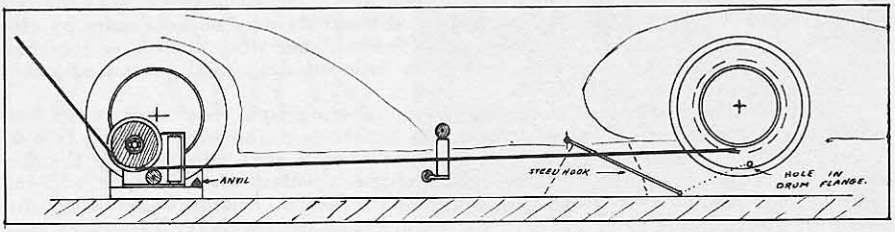
IN THE NEXT ISSUE

"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

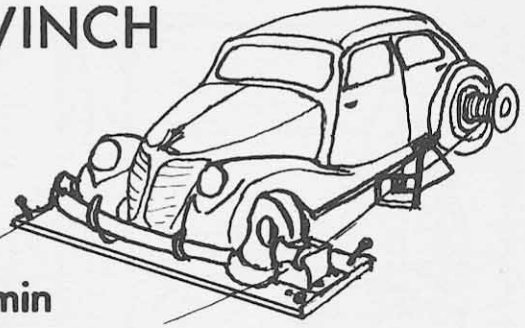
HAND OPERATED CABLE GUIDE

CAR SIDE

ROLLER ASSEMBLY

A CUT-RATE WINCH

- and how to build it



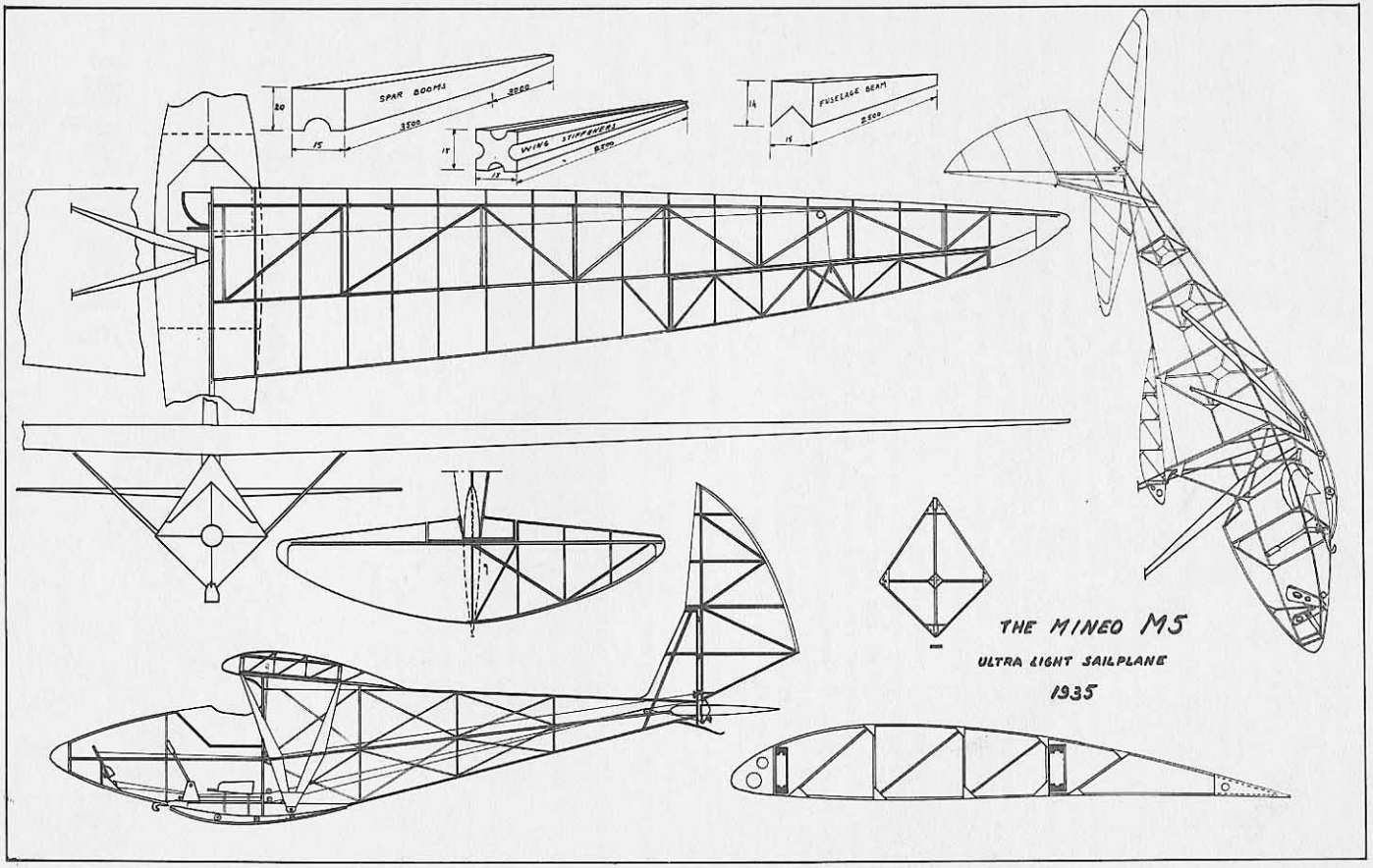
by Georges Jacquemin

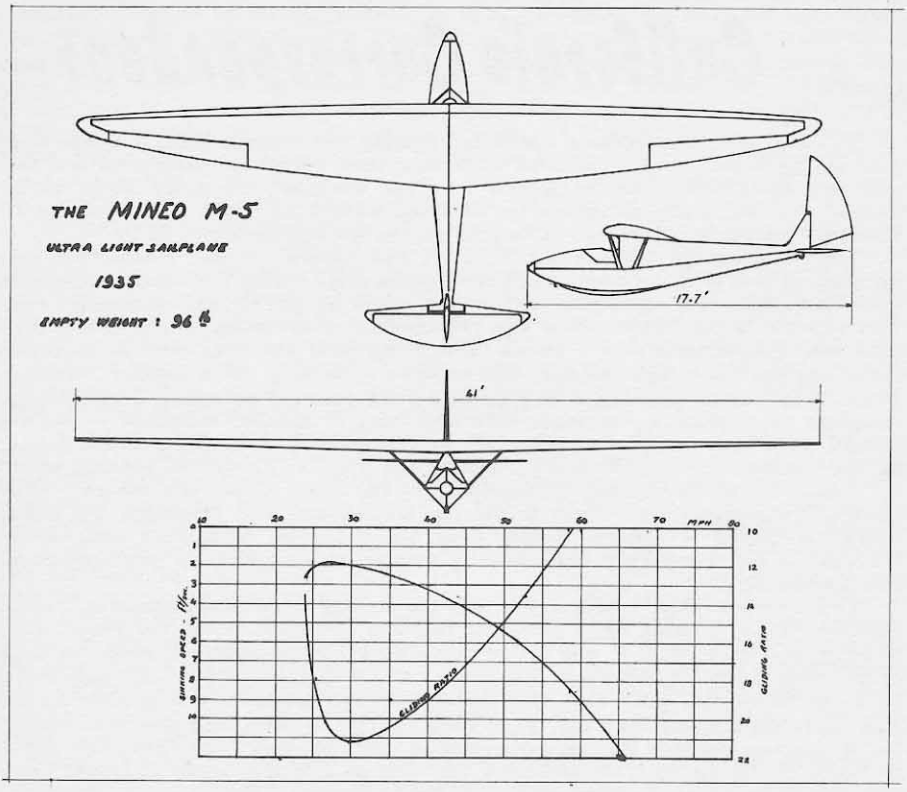
Winch-launching may not be the best method of putting a sailplane in the air; however, it has one good point – it is cheap. Using a 1300-yard length of cable and a well placed hook on the sailplane, one can reach anywhere from 600 ft. to 1000 ft. altitude; considering the rate of sink of a good trainer 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)*