CANADIAN SCENE

by DOUGLAS A. SHENSTONE

"L'AFFAIRE MU"

(Ed. Note: Through the kindness of Vernon Pope, Montreal Soaring Council and members we are able to bring you The Mu Story at last, in two installments; first of which appears below.)

Four years ago, unexpected by all but a very few, four immigrants arrived in this country. They had been liberated from Germany, had gone to England, and been spirited across the Atlantic. Travel-worn and showing the effects of their hard lives in varying degrees they were, it was learned, being cared for by the National Research Council until they could be placed in suitable homes—four German-built sailplanes in a very sailplane-hungry land.

Two of the newcomers were Grunau Babies with complete instrument panels and in flyable condition, or nearly so. Another GB was considerably knocked about. The last member of the group was an MU 13D, badly weathered. After four years of continuous setbacks this last machine is now nearing a flyable state, and its progress has stimulated more curiosity than all three GBs combined. It is, in fact, doubtful if any other glider in Canada—the LOUDON excepted—has occasioned more comment than the MU in those four years.

It was at first intended that the gliders should go to clubs at Universities. One of the two good GBs, however went to the Navy Club then flying with the Gatineau group in Ottawa, the connections of the latter group with the NRC providing probably the best facilities in Canada for making repairs and conducting research. The other good GB went to the Queen's U. Gliding Club at Kingston. The MU was handed over to the McGill Club and the bashed-about GB was shipped off to the University of British Columbia.

The McGill Club, at the time the MU was obtained realized that there was a good deal of work to be done, but many of them believed it could be done quickly. The pessimists foresaw it as a long and expensive job; but even the pessimists undershot by two fields and a couple of fences.

The MU 13D is a development of an earlier model, of which it retains—it is hoped—the desirable characteristics of low rate of sink and good gliding ratio. Some faults existed in the early model, notably poor control characteristics, poor penetration and embarrassingly low placarded speeds. Although the truth that the first of these faults has been largely remedied will not be known until it is airborne it is believed in the newer model. The last one has been only a little improved if any, according to the placards on the glider when it was received. Penetration, it is believed, is unchanged because it is due to the airfoil section used. There is some hope of slight improvement through the design of a new and better cockpit canopy, but no one expects a really respectable speed range.

When it was brought from Arnprior to the McGill Club's workshop the MU at once became the subject of a small war between the "rush-it-through" and the "do-it-right" schools. Fortunately the latter won out. The train of events which followed shows that if the former had prevailed we would now almost surely have a pile of bits and pieces and perhaps even an obituary as a reward for eagerness.

Once the course had been decided, the difficulties of really doing the job right began to parade themselves. The design of sailplanes for special qualities of performance leads to the employment of complicated ultra-light structures of critical fragility, and in this the MU is true to type. And there were no drawings, technical information or even a good picture to be had. Letters to England, France and Germany—to anyone anywhere who might help—gained nothing. One particularly irritating incident was to be roundly scolded (second-hand) by a man who had sent us a full set of plans several months before he sent the scolding. By then they could not even be traced.

No one we knew in Canada was familiar with the construction of the machine, so it would be necessary to prelude all repairs by very careful design work. So, with many misgivings the work went forward.

Work was begun with the left wing leading edge and torsion box, which went quite satisfactorily. Biscuit patches were used and pressure by means of strips of inner tube. Even a bad portion of skin on the top of the torsion box offered but little trouble. In short order, in 1947, the left wing was presumed to be finished. Then the rudder and elevator were completely dismantled and every piece painstakingly reassembled.

Inspection of the right wing showed that the spar —which is the only main part of the wings to which the fuselage attaches—had deteriorated so badly that the entire spar and wing section inboard of the torsion box had to be rebuilt. This, which was to prove the most difficult job of all, was started in McGill's shop on University Street. However, when winter came no heat was forthcoming from "Works and Bricks" so the job stopped. In the spring two club members who had inspected the wing with a great gusto, removing parts and irreplaceable tubular rivets on wing pickup fittings, became inactive. The job then progressed sporadically and slowly, until the McGill authorities pushed the final nail into the coffin by tearing down the workshop!

The parts were stored until the Canadair Club was organized with a heated workshop, when chief "tearer-downer" for earlier inspection became—with one other member—our workshop supervisor and spark plug and 1949 became a year of progress.

The fuselage was completely stripped and inspected and every joint and tube was steel-wooled. The two main fuselage longerons were so badly corroded that replacement was necessary. The problem of splicing in tubing of less than .016" wall thickness without buckling the frame had not been surmounted by anyone who had tried repairing MUS in Europe; but we had to try.

Arrangements were made at Canadair through the Soaring Club to try to effect this extremely difficult repair at cost price. After we had supplied and fitted the new parts, Canadair built a Rube Goldberg structure of 2"x4"s, piano wire and turnbuckles around, in and on the fuselage, and assigned two of their best welders to it. In 80 hours of hysterical welding and straightening, the job was finished. (The bill—$234.68 for six welds).

All control cables, fittings and pulleys were re-

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WESTERN SOARING CONGRESS

The Western Soaring Congress was recently formed by a group of prominent interested persons, who with the blessings and moral support of the Associated Glider Clubs of San Diego, the Southern California Soaring Association, and the Northern California Soaring Association will sponsor and coordinate national and regional contests and other soaring events. The Congress has already taken steps to bring the Nationals to the West Coast by placing a bid with the SSA Contest Committee for the '52 contest. We sincerely hope that we will be given the opportunity to sponsor this great event. Should we be so favored, everyone may be assured that the Congress will bend every effort to make it a very enjoyable and profitable contest for all concerned.

In addition to those already active within the Congress, an invitation is extended to all groups and individuals on the West Coast to join us for our mutual benefit.

JACK WOLFE.

● *Technical Papers*

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strate that they are thinking of motorless flight as a science as well as a sport.

AUGUST RASPET, Chairman,
OSTIV Scientific Committee
Mississippi State College, Miss.

● *Observations*

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complishment, experienced only by those who help to prepare for a contest. Wide-spread distribution of the work will be found by the leaders not only to relieve their own burden but to also produce much better results.

Another impression, was the great number of people enjoying participation or observation of the activities whose names are not on the SSA membership lists. A letter received recently impressed this more definitely when nineteen participants were mentioned and fewer than half of them were found to be members of SSA.

One observation, which was really suggested by a participant, is the attire of some of the contestants and crew members, which may make unfavorable impressions on the public, especially at cross country landing points. Neat attire including the insignia or name of the sponsoring group for both the contestants and crewmen is probably a very worthwhile consideration.

Of all my observations however, the third that is mentioned above has the best probability of productivity. I believe that it is through local organizations that provide projects of family interest and of interest to people of kindred activities, including scientific aeronautical and meterological researchers, that development of motorless flight will expand.

● *Canadian Scene*

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newed and reinstalled. The seat was rebuilt, a new instrument panel made and the fuselage was ready for covering. However, on account of its rather odd shape, outside professional help was decided upon to maintain the constant standard of top workmanship. (Cost—$40 plus 5 gals of dope, 3 gals of thinner).

We were now into 1950 and the fuselage, ailerons, rudder, elevator and right wing were finished. The repair of the butt end of the right wing spar had been slowly progressing. Ribs had been built and much talking had been done but the time for taking a deep breath and wading in had arrived.

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The Editor Hears . . .

THAT HARRY PERL, designer of the Nelson Hummingbird, has completed working drawings and design details for another glider. Powered? Of course! Construction will start as soon as he can round up the necessary materials on our rapidly disappearing aircraft parts market.

THAT LES ARNOLD has an extra TG3 fuselage and is toying with the idea of adding a retractable launching engine to it.

THAT BOB SYMONS, with his talk about wave soaring at Bishop, drew one of the largest crowds ever at the fall meeting of the No. Cal. S.A.

THAT E. J. REEVES has now toppled Pop Krohne from his perch as soaring's only pilot grandfather. E. J.'s daughter Patsy presented him with a baby girl on October 22.

THAT RICHARD LYON, Gold "C" pilot and Hughes engineer, took unto himself not only a wife (Lucy May Newman) but an A. & E. mechanic and a willing crew member! Double congratulations to two swell people!

THAT DR. AUGUST RASPET has experimental evidence to back a prediction for a glide ratio of better than 40 to 1 on the modification of a U. S. Army surplus glider.

THAT STAN HALL, SCSA president, with the help of Doris has presented the soaring world with a new enthusiast, a daughter born Nov. 7, named Denise Elizabeth.

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