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NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS.

TECHNICAL MEMORANDUM 122

THIS SUMMER'S GLIDING MEETS.

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The recent developments in the plan for the coming summer are of much interest. The particular occasion is the soaring program of the "Premier Congrès Experimental d'Aviation sans Moteur," the gliding meet to be held in France this summer. The program, an attractively prepared booklet of about 50 pages, opens with a mention of the results which have been achieved in soaring flight in Germany and with a determined declaration that France, cradle of aviation and mother country of that great pioneer in gliding experiments, Louis Mouillard, must not fail to keep abreast of the Teutonic in this as in all other phases of flying.

Unfortunately for those who might plan to attend or to compete in both the French and German gliding meets, they are to be held at the same time. The third soaring competition in the Rhone Valley will start from the heights of the Wasserkuppe on August 9, and continue until August 24, while the French pilots and those who accept their hospitality and come to contend with them will make their flights between August 6 and 20, among the peaks of Auvergne. It is regrettable from a scientific standpoint that the French and German competitors cannot come together in a single meet. The state of national feeling of course makes that impossible, and the French competition is open only to citizens of countries which were allied with France or neutral in the late war.

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*Taken from "Christian Science Monitor."

The district selected for the French competition seems to be an excellent one, its general geographical features being similar to those of the Wasserkuppe country. The flights are regularly to start from the Puy de Combegrasse, the summit of which rises to about 3800 feet above sea level. Pilots who have previously proved their skill, however, will be permitted to start for some of their attempts from the Puy de Dome, which attains a height of nearly 5000 feet. The whole country has that broken form which is so desirable for soaring experiments, producing the irregular gusts and the ascending and descending currents of air from which the soaring machine must draw its propulsive force if it is to remain long aloft. The district is almost treeless, and obstacles need not interfere with landing.

The restrictions on the competitors are very slight and are designed chiefly to insure safety. Every glider entered must pass the inspection of a technical committee from whose decision there is to be no appeal, and the pilot must also prove his own competence to the satisfaction of the authorities before being allowed in the competitions. The method of launching of the machines is not prescribed, being left to the judgment of the entrants. It is probable that, as in Germany, most of the competitors will consider it best to project their gliders into the air as if from a sling-shot, attaching a stout elastic cord to the machine and stretching the cord by having a number of men walk ahead with the free end, and then releasing the glider.

All sorts of proposals for launching have been brought forward both in America and in Europe, one of the most sensational being that of an air service officer, who suggested (not altogether seriously) that a glider should be attached to the rear of his airplane and towed through the air at a speed of 120 miles an hour to a height of 3000 or 4000 feet before cutting loose. One suspects that the glider pilot would experience all the sensations of a passenger on the tail of a comet.

The prizes offered for flights from the Puy de Combegrasse total 100,000 francs ($9100), and it should be possible for a number of the entrants to clear considerably more than their expenses. Eight regular competitions are scheduled, from two to five prizes being given in each one and two special prizes are also offered. Among the awards to be made are those for the longest time in the air in a single flight, for the longest total time in the air in the two weeks' duration of the meeting, for the longest distance covered in a single flight, for the greatest altitude, and for the most accurate landings, the pilot being required to bring his machine to rest as close as possible to a spot marked on the ground in advance of the flight. Some one of the events, at least should appeal to any pilot's taste.

The rules of the French competition make no attempt to restrict the type of apparatus used, except that no mechanical power may be fitted. The use of a propeller driven by the pilot's own muscular exertions is permitted, and the "aviette," or flying bi-

cycle, will thus have a chance to show what it can do in direct competition with the soaring machine deriving all its energy from the air.

The advance announcement of the rules of the German soaring flight meeting is less elaborate and less detailed than the French prospectus. The competitions are not so varied, being limited to distance and duration, but there are some very interesting new features in the plan of organization. In particular, the attempt is being made to encourage novices who might hesitate to compete on equal terms with such pilots as Klemperer, Harth, and Koller. In order to give the beginner a chance, there are a group of competitions limited to "soaring machines," another group for gliders, which have not exceeded 60 seconds' duration in a single flight, and still another for "body-controlled" machines in which the pilot controls the balance only by swinging his feet forward and back and from side to side while he hangs below the wings. As a further incentive to pilots, not recruited from the ranks of those who were flying during the war, there are to be special awards for the best performances by pilots who do not hold a license to operate a power-driven airplane. The prizes to be awarded in the Rhone valley total 172,000 marks ($590).

It is 10 years since a gliding competition has been held in the United States. A secondary position in soaring no more befits the country of Wright, Chanute, Langley, and Herring than it befits the countries of Mouillard and Lillienthal, and it is to be

hoped that it will not continue to lag behind. At least one glider of modern design is now under construction in America and will undergo its trials within a few weeks, and more should follow. In particular, it would be interesting to see an American entrant starting from the Puy de Combegrasse or the Wasserkuppe next August, and competitions in soaring flight should also be held in the United States. Even though no Americans enter in the European meets this summer, however, and it is feared that it is too late to prepare for that now, tourists interested in aeronautics should not fail to visit the scene of at least one of the events and see the extent to which soaring flight has been carried. The Rhone district is not difficult to reach, and the Puy de Combegrasse lies within 15 miles of Clermont-Ferrand, the metropolis of Auvergne and formerly the site of an aviation camp where hundreds of Americans learned to fly during the war.