

falling a very light hail, granulated, such as sugar. At this time I was in clear air and had a magnificent view of the cloud itself. Below me tenuous filaments of vapor were spread out, reminding one of the smoke tendrils from a shrapnel burst, doubtless thrown out from the main core of the thermal by localized turbulence.

Getting my bearings, I headed into the center of the main cloud column. While outside, my down-draft had been replaced by gentle lift, but upon reentry, the rate of climb dropped to 12 feet per second down. As I approached the center of the cloud, it leaped to 15 feet per second up, where it remained for the rest of the flight. At about 15,000 feet the condensation began to freeze; at 16,000 feet a blast of hail began a barrage which continued throughout the remainder of the flight. Crouching low in the cockpit as protection from possible large hailstones, I stuck it out until my altimeter showed 18,000 feet. By this time my turn venturi was a ball of ice, my windshield was opaque, and the wings had acquired a thickness of  $\frac{1}{2}$ " over the leading edge, and the turn gyro had become perceptibly more sluggish. Again setting a straight course at random, I flew through the violent downward moving envelope to emerge, shivering and numb with cold, in clear sunlight. The cloud's external appearance had changed little since my observation some 20 minutes previously. The hail followed me some 2 minutes after leaving the cloud, falling from the anvil canopy above and presenting a glorious opalescent rain which made quite a merry clatter against my metal fuselage, but did no harm, being of small size (perhaps the size of a pea).

Examining my plane, I found that considerable hail had penetrated a crack in the windshield, and I had about an inch of small hailstones covering my barograph shelf. The wing's contour was so spoiled that my indicated stalling speed had increased 10 m.p.h., and stalls were more vicious, with a tendency to drop a wing at stalling speed. We had dropped to 14,000 feet before I decided to quit the vicinity and head toward the cloudless northeast where lay Schenectady. Cruising at 40 m.p.h. indicated airspeed through bitter cold, I noted that the wing ice began to evaporate, and was nearly entirely dissipated before arriving at the thawing level of about 10,000 feet. My fingers were blue with cold, and required continued blowing of hot breath to ward off the ache of cold. At about 9,000 feet the venturi ice began to let loose, and the turn indicator slowly resumed its long quiescent function.

At 6:28 P. M. the flight terminated at an elevation of 1,400 feet, my distance airline from the cloud being about 80 miles, all achieved from a simple, smooth, unaided glide, sinking about 2 feet per second, the distance requiring some hour and a half to finish. Examination disclosed no damage due to hail or other sources.

The lack of oxygen at this elevation was not noticed even slightly. I have frequently flown to 20,000 feet and possibly have acquired a bit more resistance to lack of oxygen than the ordinary person, but I feel sure that had I been equipped with electrically operated instruments, a flight to 25,000 or even 30,000 feet could have been made. The most turbulent stage of a cloud's formation is the ice level, and once above that, lift is gentle and smooth, as reported by German soaring pilots. To have continued on without adequate instruments, however, was to invite disaster, for with thunderstorms, true indeed is the slogan, "Nature in the raw is seldom mild."

## Glider Port IN GLEN ELLYN



On July 8 officials of the Chicagoland Glider Council announced that negotiations for the lease of a 116 acre tract of land had been successfully completed. That same weekend, work was begun in clearing and grading the field to form the first glider port in the Chicagoland area. It is located between Wheaton and Glen Ellyn, and will serve northern Illinois and Indiana, and southern Wisconsin.

The following press release from Bob Blaine, secretary to the Chicagoland Glider Council describes the opening of the field:

Glen Ellyn, Illinois, a western suburb of Chicago, will be the scene of an impressive GLIDERPORT DEDICATION CEREMONY, on August 20, 1939.

Because the Sunday before the opening of the American Open Soaring Contest at Frankfort was chosen, many pilots and planes are planning to attend and participate. Acceptances are coming in from many leaders in mid-western soaring as well as from U. S. Army and Navy groups. There will be facilities for many visiting ships to fly in the "sail plane demonstration parade," a feature of the ceremonies. Every member of the Soaring Society and every pilot and crew member are cordially invited to attend and help put on a real spectacle. Army, Navy, and transport air lines are helping with the program. It will do a great deal to aid the cause of motorless flying and therefore the accomplishment of the aims of the Soaring Society. The Glen Ellyn Glider Club's efforts were chiefly responsible for obtaining this particularly fine site for training and flat country soaring.

Will be looking for you Sunday, August 20th, if not Saturday, the 19th. Chicagoland's Gliderport will have a really impressive ceremony to mark its opening to the soaring fraternity and its fifteen Chicagoland Clubs.

Assisting the Glen Ellyn club and the Chicagoland Glider Council are a number of local civic organizations and individuals. The Lions club has provided financial assistance in the leasing of the field and in the erection of hangars. The Glen Ellyn Chamber of Commerce has pledged its support and rendered much valuable help.

The field itself deserves a brief description. It is perfectly flat, and although completely surrounded by vegetation, has excellent approaches. It is far enough south so that the North and West winds are not affected by Lake Michigan. A hill at one end of the field improves the thermal conditions when the wind is in the proper direction. The Council believes that the field provides the best site for flat country soaring that has been developed in the northern section of the United States.

The expenses of the field will be met mainly by rent from the ships and clubs that use it. A small charge for launching will be made for the use of the Chicagoland Winch. Besides the Glen Ellyn clubs, there will be approximately twelve others that will use the port. It is expected that there will be activity to compete with that of any other field in the country.