

suddenly ceased and I came out on the back side, hoping that I might be able to go back in again and set a bit more altitude to assure myself that I had plenty for the requirement. It was not to be so easy though, as I was in a sort of semi-instrument condition, losing altitude rapidly and could not locate the cloud.

I soon decided that I was on the back side of a well developed thunder storm. I could hear thunder and lightning was quite frequent, so I knew the best thing for me to do was to set a northeasterly course, dive through the thunder storm, get on the front side and land back at the airport. I was still losing altitude at an alarming rate when I felt the Minnie shake a few times and then the fun started, or was it fun? The realization that there was an unknown quantity soon put a damper on the fun.

On instruments, of course, and I noticed by the Kollsman climb indicator that the Minnie was going up at the rate of 10-20-30-40 feet per second. It started to rain in torrents and I thought to myself, if I reach the ice level with this much water present, I really am going to get a load of ice and maybe run into difficulty. I was still trying to hold an easterly course, but by this time the turbulence was so terrific my sense of direction was lost and the compass was spinning completely.

At fourteen thousand the ice level was reached, which was fifteen thousand above sea level, as the airport is one thousand above sea level. As I had expected, the Minnie took on a good half-inch of ice and out went the air speed and the Minnie became quite nose heavy. I still had the bank and turn and for pressure I was using an atomizer bulb and, believe me, I was really pumping. On flights in the past I had practiced flying the Minnie without the use of the air speed, depending on the noise of the movement of the Minnie through the air, so this did not worry me too much until the noise of the hail became so much greater than the movement of the Minnie that I was forced to rely on the mashing qualities of the Minnie by holding the stick well back and easing off when the feel of a stall was approaching.

It seemed impossible to fly straight due to turbulence. There would be intervals when the hail would cease and some semblance of a straight flight could be accomplished, but all this time I was still going up. Considerable hail had beaten through what I thought was an exceptionally tight enclosure. I was practically sitting in ice, but I was not cold, whew!! Would I never get out of this vicious condition . . . 15-16-17-18-19-thousand feet above sea level!! I remember noticing the Kollsman sensitive altimeter would hang at intervals, break loose, and jump a complete revolution and hang again. I remember seeing it above eighteen thousand, how much higher we went only the barograph will tell. By this time I was getting worried

about altitude and its effects and figured that I must concentrate completely on getting out of the storm—passing out for lack of oxygen. The latter would mean the Minnie would be out of control, a dive, excess speed—breaking up the sailplane, and if I came to time to open the parachute I might still be in an ascending current and would have to ride the storm again hanging by the chute harness.

I was trying to hold the Minnie straight. It seemed like I had been fighting this thing for ages—I was getting very tired—the thunder and lightning were much closer. At times I thought the Minnie would take it longer. We would hit periods of hail that I thought would hammer in the enclosure. Finally we hit a comparative calm and I got the Minnie turned in an easterly direction, but we flew and flew with the compass swinging from north to south. After a considerable time the turbulence abated and in a few minutes I thought we were in the clear, but could not see out because of the iced-over enclosure. After a bit I had one of the windows open to assure myself and saw that we were entirely in the clear.

By the time we were down to an altitude where the ice began to melt, I must have been getting quite groggy. I could see Atlanta plainly but could not find the airport. I looked at the altimeter and it registered four thousand feet and I thought to myself—how did I get down to four thousand so quickly, it certainly looks higher, I must be all wrong, the airport must be on the other side of town, so I headed in that direction but didn't know how I could make it as all lift had disappeared. I had resigned to land away from the airport and was down to two thousand when I suddenly saw the airport practically underneath me, then did I feel silly. It suddenly occurred to me that the altimeter had made another revolution to make and I was really at two thousand feet. Due to the absence of physical strain I began to get cold but we were soon down to warm levels and from four thousand the Minnie and I indulged in all the acrobatics that we knew how to execute.

After landing, the Minnie was given an inspection for damage. The cockpit enclosure glass was cracked, the upper side of the elevator fabric was very loose and cracked and required replacement due to the enforced upward position, Balsa fillets for the wing butts were damaged, the Balsa nose piece that forms the streamline for the fuselage was badly split, the paint was off and the entire upper surface needed a new coat of varnish. I believe the damage would have been much greater had it not been for the coating of ice.

I believe the barograph will show that we were about sixteen thousand above sea level for at least twenty minutes. At one time during the ascent we squared

*(Continued on page 12)*