

# Storm Soaring IN AN AERONCA

by L. D. Montgomery

On May 28th a small local thundershower was seen approaching Triangle Gliderport from the southwest. I took off in the Aeronca C-3 to investigate the lift which might be associated with this thundershower. There were other showers about also. It was not my intention to enter a cloud on the flight. No sooner had I taken off, however, than rain began to appear on the windshield. This was not to my liking as I did not wish to fly in anything more than a very light rain.

I turned to the left and flew toward the southeast where there was a large opening in the cloudiness. Keeping certain fields in mind for landing in case of motor failure, I continued at a low altitude but climbing. Before I had gone more than perhaps a mile and with an altitude of 800 feet I encountered a strong thermal. The rate of climb indicator read 15 feet per second then I hit the safety belt hard as I flew on through the lift and the airplane stopped rising much more quickly than I did.

Turning to the left I flew back through the thermal from northeast to southwest. Just at the expected point there was the strong lift with the rate of climb going up to 16 feet per second then with me hitting the safety belt hard again. This was the strongest thermal I had ever encountered in glider or airplane. My mind was made up. I would circle in it. I had often done this before in the Aeronca and kept a rate of climb indicator in the ship for this purpose. It proved easy to center my spiral on the thermal. I throttled the motor back until it was riving at 1200 rpm, whereas cruising is 2250.

In a fairly tight spiral the rate of climb read almost a constant value all the way round the circle. The reading went up from plus 10 through 12, 15, and up to a good reading of 20 feet per second. The Aeronca sinks 7 feet per second when flying straight at about 60 miles per hour. It sinks much faster in a spiral. The thermal I was in was going up at least 30 feet per second. It was truly the strongest I had ever been in. Certainly it had felt very solid each time I entered it.

It seemed only about a minute until I reached 2,000 feet. The overcast was still high above. Sunshine was quite evident to the southeast several miles. Just about this time I noticed that straight east and quite near (500 yards or so) it was raining hard. The rain was streaming down out of the clouds above so that it looked like a waterfall. There seemed no danger that a general rain could occur nor that rain could fall in the area between my thermal and that solid sheet of water. No rain cloud was overhead.

Thus when the thermal weakened to give me only about 6 feet per second up it was perhaps natural that I flew toward the rain storm just to investigate over there. The climb decreased to four then again went up to 6, 8, and

just along in front of the rain it was 10 feet per second up and very smooth. I skirted the rain sheaf by turning south then keeping left so as to stay near but not too near (perhaps 50 yards away from the rain). Soon another distinct rain storm was evident straight east of the first and then later a third east northeast of that and a fourth just on beyond that. I simply flew along in front of the line-up. Just in front of each sheaf of rain the lift was always best, (10 to 12 feet per second up). Between these points it was still good, being about 6. Reaching the end of the line, I turned away from the rain and then flew back along the line. By this time I was up to 3,200 feet and the rain was below me. There were the rain clouds along side of me. They did not look very wicked. Of course, I was being careful to stay out of them and I would have been afraid to fly along the line of clouds had it not been for the open air just out in front and plenty of clear space to fly into getting away. The sun was shining brightly over Canada far to the southeast. There was still the high overcast between me and the sunshiny area.

Several trips along in front of the squall line gave me an altitude of 4,000 feet, before the lift had gradually diminished until I was just holding my own. I had to fly with one wing in the cloud and otherwise out in the clear to keep at this altitude. This I did for a time, but the longer I kept it up the more I wondered if I had not all the time been running a risk by playing so near a storm. The whole storm seemed to be drifting toward Canada and Lake Erie to the southeast.

The motor had been idling at about 1200 rpm the whole time since the first thermal which had carried me free from 800 feet to 2,000. Even in that first thermal the lift had been steady and within the thermal it had been smooth. The lift had been very smooth along in front of the squall-line. I pulled out away from the storm and headed west. Wayne County airport was in full view, but there were two thundershowers to the southwest of it and they might move in before I could land and get the ship into the hangars unless I went in immediately. Still I did not use the motor. I felt that I could glide the 6 miles to the airport.

When I had dropped to 1600 feet and was quite near Wayne County airport, I noticed that it was clear at Triangle, which is ten miles to the north. I then revved up the motor gradually and cruised on back to Triangle. A storm had passed during my absence and my fellow pilots were concerned about my welfare, thinking I might have been in rain and cloud, though in reality I had been entirely in the open in clear weather at all times. I had spent 35 minutes with the motor idling so slowly that the air rushing past the propellor was doing more to turn it than the motor was.