

# Kite Soaring

## TO GAIN ALTITUDE

by Arnold J. Carson



An experience we had recently on our field near Cleveland leads me to believe that kite soaring, following auto or winch towing might be useful as a means of attaining sufficient altitude to catch thermals on days of good wind velocity. On this particular day, we had a wind blowing about twenty-five miles per hour on the ground and probably better than thirty at five hundred feet.

My brother, Carmen, flew the glider while I operated the winch. I started it up and ran it at a very slow speed, which was sufficient to allow the ship to take off and climb steadily. When the glider reached about eight hundred feet altitude, it encountered a decided increase in wind velocity. I felt the load on the winch and throttled back until the engine was just turning over.

On feeling the added velocity, my brother nosed down into almost level flight to relieve the strain on the wings. When the winch was cut back, he began to climb again. This put a load on the almost idling engine which stalled it. I quickly pulled on the brake and looking up, noticed to my amazement that the ship was still climbing with the winch drum at a standstill.

Starting the engine again, I began to reel out the wire and then pull it in again. After doing this three times, the winch ran out of gas. One of my helpers ran for the tow car and dashed off to get some more. In the meanwhile, the glider continued to climb and was now at an altitude of 2,000 feet. To my horror, I realized that if he released now, the cable would drop over the highway, several houses and an electric power line. Fortunately, Carmen looked down from his lofty perch, saw the excitement at the winch, and figuring there was trouble, did not release.

Finally, the gas arrived and was poured into the tank. As I pressed the starter, I gave a sigh of relief which was very short-lived as I found to my dismay that it had jammed.

My brother was getting colder and colder in the biting wind, and after thirty minutes of kite flying, had to release. As he did so, I grabbed the tin shears and cut the wire as most of it fell outside the boundaries of the field. Meanwhile, my assistants started the tow car.

Carmen watched the cable fall, and seeing where it came down, slipped the ship and landed close to the road. Jumping out, he forgot the wind velocity and when he reached the highway, he turned to see the wind pick the ship up. It was carried only about ten feet, where it landed on a wing and the elevators.

We reached the road just in time to cut the wire before a car ran into it. It then took us two hard hours of back-breaking work to get the wire off the houses and high tension line.

After the excitement had died down, we had a chance to take stock of what we had learned. Our maximum altitude attained by winch tow on this field had



Upper: The author in the cockpit, ready to take off.  
Lower: Rebuilt Cadet

heretofore been 1,200 feet. Today, by kite soaring, we had reached over 2,000 feet. Evidently there is a definite advantage in "kiting" to get maximum height before release.

## TEST REPORT

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to be firmly held in the spin. I could not get her to do more than three-quarters of a turn to the left. I have a strong impression that if the controls were merely released, she would promptly come out into a straight dive.

I next did a couple of stall turns, and then dived the machine to 85 m.p.h. and looped it. She came over cleanly and well, with plenty of speed over the top of the loop and with no impression of being unduly stressed at any point.

I then did some circling, with the machine well banked over. She held a circle very pleasantly, once set, there being no difficulty in keeping the speed constant at 34 m.p.h. and the machine being exceedingly stable and pleasant, and demanding no concentration at all to keep in the circle. She is noticeably easier to circle than the Rhönsperber or even the Rhönbussard, seeming to sit in it with practically no attention and feeling very safe and steady.

I then did another turn of a spin to the right, and being now well below 2,000 feet on the altimeter, decided it was time to look for the aerodrome. I found what I took to be the Newmarket Road, but unfortunately followed it the wrong way and ultimately abandoned it. I finally landed at 2:44 p.m. near the windmill on the Balsham-Linton Road at a point 200 feet by altimeter higher than the aerodrome and about 7 miles E.N.E. of it. Time taken on descent, 16 minutes.