

The Soaring TEST PILOT IV

L. B. Barringer flies the Minimoa
High Performance Sailplane

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The idea for the writing of this article, and the whole series of which it is a part, originated in the cockpit of a Minimoa about a thousand feet over the Hornberg in Germany. Now, having owned one of these beautiful ships and, having put in a total of about twenty hours in three of them, I feel like sitting down and giving my impressions and opinions.

On first being shown a Minimoa fresh from the factory, I was struck by its distinctive beauty. Even if you never had an opportunity to fly one, you could not help but be impressed by its lines as well as its finish. From the shape of its rudder, cockpit cover, sweepback beyond the gull point and its ailerons extending back of the trailing edge of its wings, this ship proclaims itself as an individual type of its designer, that past master of sailplane design, as well as soaring technique, Wolf Hirth.

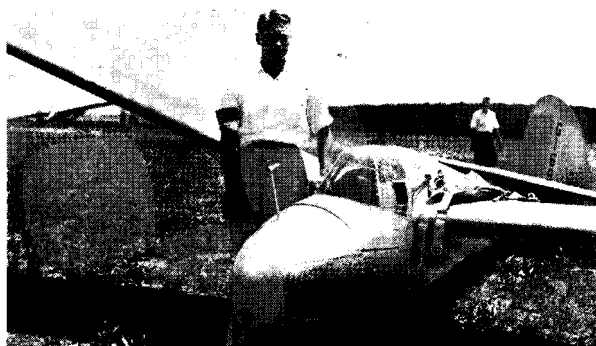
When I drove out to the field with Wolf, I asked him what "Minimoa" meant. He said that the design was a smaller production version of his famed "Moazagotl", which we all know was named for a rare type of cloud, the origin of which Wolf discovered through his soaring research. Minimoa was his name for a small (mini) Moa (zagotl).

Reaching over, he put his arm inside the small ventilation window on the left side of the cockpit, and turned the wooden knob which released the cover. It swung open to the right and came to rest, hanging down on a leather strap. Climbing in, I found ample and comfortable room for my six feet four inches, as I put my feet on the rudder pedals and found myself more lying down than sitting. Wolf and Martin Schempp gave much thought to this design for making the pilot as comfortable as possible, both well knowing from experience how much a pilot's efficiency can be reduced after four or five hours if he is cramped and uncomfortable.

I had strapped on a back pack chute and found that it fitted behind me and helped support the small of my back. After snugly securing the four-way safety belt, I pulled the cockpit cover closed and snapped it in place. I found visibility forward and downward excellent, but I was at first disconcerted a bit by the fact that the gull of the wings made it impossible to look straight out sideways or see the wing tips.

This flight, like many I was to make later, was flown from airplane tow, so the start was nice and gradual. The very first impression I had as the ship left the ground was that she was steady as a rock. It was a sensation I had never had before in the sailplanes I had flown, and it was very pleasant. After releasing at four thousand feet, I soon discovered how remarkably stable she was, as well.

One of the first sensations was the additional feeling of stability, due to having a fixed horizontal stabilizer, which does away with having to "fly" the ship every



Upper: Head-on view of the Minimoa

Photo by Martin Schempp

Lower: Richard duPont and his Minimoa, the first in America

WPA Photo

minute. Diving and letting go of the stick, I found the corresponding oscillations soon damped out as this ship was so beautifully balanced that it would fly hands off.

On another occasion I did my first cloud flying with this ship. Entering the cloud base at 4,500 feet, I put it in a bank of about 30°, and, with the indicator of the turn and bank slightly over, had no difficulty in keeping the ball centered and spiralling over 3,000 feet before straightening out and leaving the cloud.

The highest speed that I have ever dived this ship was around 90 m.p.h., and I discovered that the faster I flew, the more solid it felt. I understand that it will stand a dive and pull out of close to 200 and that, in Germany, they airplane tow it at over 100 m.p.h. When first diving it to 60 after "cruising" at 40 it is extraordinary the way the sinking speed will increase from 3 to 9 and then gradually drop back to 5—an indication of fast flying distance possibilities.

In pulling up into a stall, it gives you ample warning by a slight flutter of the tail surfaces. I have not put this ship into a spin, but there seems to be no tendency to fall off. I understand that it will recover very quickly from a spin, and that it can be put through all sorts of aerobatics with safety.

Coming in to land the first time, I felt that I had my hands pretty full, as the speed would pick up very fast as I dropped the nose. When I pulled the little wooden knob on the left and opened the spoilers, she dropped as if someone had chopped ten feet off the wing. The air-speed went up to 60 and the glide became so steep that I had no difficulty in landing where I wanted, and quickly came to a stop by pulling the metal brake lever on the floor. In summing up my opinion of the Göppingen III, as the Minimoa is officially designated, I can truthfully say that it is by far the finest sailplane I have ever flown—but then I haven't yet flown our new American Ross sailplane, now being built. It is going to be mighty interesting to compare the latest product of American ingenuity with the best that German experience and manufacturing thoroughness has produced.