The National Soaring Center at the Banne d'Ordanche

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Eric Nessler with Mme. Nessler at Beijnes-Thinerval

A Distance Flight in France

by Eric Nessler

(Editor's Note:—M. Nessler is the Chief Pilot of Avia, the French National Soaring Society. He has been an active pilot of motorless ships since 1921 and holds Silver C. No. 66, the first in France. Of particular interest to American pilots are the comparisons between atmospheric conditions here and abroad to be drawn from this carefully and scientifically recorded flight of 116 miles, the longest made in France.)

ON the morning of August 11, 1935, the atmospheric conditions seemed to be such that soaring would be impossible. The unstable air was reported to begin 1900 feet above the Banne d'Ordanche where we were assembled for our annual national contests. However, a feeble southwest wind seemed just strong enough to make slope soaring possible.

I made my take-off at 11:28 A. M. in the direction of the valley of the Dordogne above which I was able to hold my own and to gain height. Seeing this, several students took off after me to explore the conditions and I saw immediately by our altitudes that the instability of the atmosphere was catching up to the lower performance ships. I was flying the high performance Avia 41-P which has a span of more than sixty-two feet and a very low sinking speed.

Soon I caught sight of some flat, alto-cumulus clouds very favorable for soaring which stimulated me to redouble my attention in the search for rising currents. I found a very strong one on the side of the plateau of the Banne d'Ordanche and spiralled in it up to its ceiling which was at 3500 feet, and 500 feet below a vast cumulus cloud.

In front of this evident proof of a favorable atmosphere I headed northwest for another cloud. I sailed with the feeble wind with the intention of trying for distance. Encountering a mass of clouds on the side of the Aydat I regained some lost altitude and then dropped for a loss of 1500 feet. I had to head back under the clouds and try to recover the lost altitude before attempting to cross the chain of mountains known as the Dômes.

I crossed this bad stretch rapidly with the nose down and the variometer registering a continuous descent of eight and a quarter feet per second right up to the side of the Allier River. From earlier flights I knew that the slopes along this river constituted a regular spring of thermal currents. It was, therefore, with complete confidence that I glided toward this area.

Once again I encountered the same phenomenon and spiralling over St. Maurice I regained 1600 feet. Along the banks of the Allier I encountered more thermals and in each I managed to climb higher. The lift found over this valley contributed 4,300 feet of altitude.

The flat-bottomed alto-cumuli disappeared as I headed over the Auvergne Mountains. Ahead was a clear sky with only very occasional small white clouds at about 10,000 feet. After three tries I found that each of these small formations was the top of a narrow column of vertically rising air. By tight spiralling I climbed to the cloud level and the altitude gained helped a great deal in making distance.

By the time I reached the Forez Mountains, I had lost much altitude. The only chance of continuing was to steer under a light and very high cloud in hope of finding the thermal causing it. This, I decided, must originate over a heavily wooded valley where no landing was possible.

Here came one of the most dramatic moments of the flight. In a few seconds I had to decide whether to turn back before the woods and end the flight or continue up this forbidding gorge and find the necessary thermal upcurrent. I quickly decided on the latter solution and with confidence turned the nose of the big Avia toward what I felt sure must be an area of upcurrents. My deductions proved correct as I glided toward a wooded slope and saw my variometer needle moving upward. To stay in the current I immediately banked over in a tight, continuous spiral. For nearly two thousand feet I rose at a speed of between three and six feet per second before losing the thermal. Nearby I saw some cloud formations moving in a northeasterly direction and, sure enough, they led me to thermal "chimneys" by which I was able to regain 1,300 feet.

Ahead extended the Forez Mountain chain more than three thousand feet high and as I knew I would find upcurrents on their slopes I continued on them without