

OCEAN *Thermals*

by Woodbridge Brown

On October 3rd at 5 a.m., we arose to find a strong breeze blowing from the west, with an unstable air condition bringing small puffy cumulus clouds in from the Ocean.

Ed True, who is now working at Consolidated Aircraft, came out and helped me before he went to work, so I was off the ground at 6:30 a.m. There were weak thermals beneath the clouds even at this early hour. At about 8 a.m. the thermals began to get stronger and although the slope wind had decreased so that my altitude was only 600 ft., I was able, with the thermals, to keep an altitude of 800 ft. Occasionally climbing to 1200 ft. in spirals, I drifted about a mile inland. On each of these occasions it would have been possible to make contact with the clouds and to have flown about under them anywhere. But not having had much time in my new R. S. I., I was afraid of being set down inland soon after leaving. So with a good slope wind blowing on which to fly all day, I did not go.

At 2 p.m., Dick Essery came out to fly, which enabled me to land and take a friend up in our Club's two place Grunu for half an hour. Landing had been impossible before as there had been no one there to take me off again.

Taking off in the R. S. I. at 3 p.m., and again finding many good thermals, I decided to take the next thermal to the cloud base, and land at Clarence Prescott's Airport, ten miles inland.

Just behind the cliffs (about a mile inland) the thermals get very weak and sometimes die altogether. If we can pass this place, the strength of the thermal increases steadily to the base of the cloud. Thermals start at about 3 ft. per sec. at the cliffs, decrease to 0 or 1 ft. per sec. one mile behind the cliffs, then steadily increase to 6 or 10 ft. per sec. at the cloud base. The cliffs on which we soar drop directly into the ocean.

Upon reaching the cloud base, I decided to fly directly out to sea, and find out if we could soar on the clouds over the ocean. Leaving the cliffs and a cloud base at 1900 ft., I flew out to sea about three miles to the best looking cloud, which, incidentally, was not very good. I found no defined thermal, but managed to hold 0 sink for about 5 minutes. Then I headed back to shore where at about 1200 ft. there was another thermal which carried me back to the cloud base. I thoroughly intend to try this experiment again with a little better conditions. This time I continued on inland as the clouds were larger and more numerous. Not being able to fly blind because of being in the San Diego-Los Angeles airway proved to be most disagreeable. The cloud bases were only 2000 ft., and between the clouds there was no lift.

Finally, upon reaching Clarence's Airport, which is out of the Airways, blind flying was possible and I

climbed to 4000 ft., at 5 p.m., having flown a total of 10 hours that day.

The next day, October 4th, was equally good and the take-off was made at 6:30 a.m. (I didn't have enough flying the day before!), with thermal action starting about 8 a.m. By 8:30 a.m., I was away to the cloud base, which varied from 2000 ft. to 4000 ft. altitude. This difference in base altitude was apparently due to two different things. First, the bases were higher the further inland they went, finally clearing the mountains at 6000 ft. 50 miles inland from the Ocean. Secondly, the bases of the clouds were different altitudes, with each individual cloud having a given slanted base. This made it possible to get 4000 ft. by climbing the tapered base of the cloud without ever flying blind. Also with the speed and cleanness of the R. S. I., I found myself 100 ft. higher than the edge of the cloud having 80 m.p.h. air speed to keep from getting sucked in!

Figuring once more on flying out of the airway, so I could fly blind and gain some more altitude, I was deeply shocked, upon reaching Clarence's Airport, to find that the Navy was practicing dive bombing in that vicinity—close vicinity—too close several times. So I flew head wind at 70 m.p.h. under the cloud base without making a turn, to San Diego where I figured at least there would be sane flying! On this 15 mile hop, 80 m.p.h. was not enough to keep from being sucked into the clouds and as the air was rough, over 80 m.p.h. was not a pleasure, so I had to detour around several clouds on the way.

The rest of the flight over the city was one of the greatest pleasures of my life. I flew down long corridors between the different shaded clouds into rooms of clear air surrounded completely by silvery mist, with a floor of buildings and a roof of blue sky. I would fly under the clouds until the base was reached, then dash out into clear air to play about until my altitude was gone, then back I would go under the cloud again. These clouds were unique in that they always kept their up current, like a slope wind. It was always there when you wanted it. I used one cloud in this manner for over 30 minutes until it finally drifted too far away down wind.

I was forced to land at Lindbergh Field because of the same old reason. One cloud got so big that it covered all the surrounding country, and when I came back under it there was nothing there and no place to go that I could reach, as the ceiling was only 2000 ft. and the nearest individual clouds were over 5 miles away. This is about the third experience I have had of this kind.

The ship landing on Lindbergh Field caused quite a sensation among the new Army students. Some thought it was a pontoon job, others, someone who had forgotten to lower their retractable landing gear; then finally in desperation they thought possibly it was a man from Mars. The landing was made at 11:30 p.m., flying time 5 hours.