

TWO UP TO 38,650

By Robert F. Symons

On this particular morning (March 5, 1951) there were a few cumulus shaped 'roll' clouds down the valley, and a few thin lenticulars showing to the north. From the Pibal reports, the wind velocities over the mountains were fair at about 30 to 40 knots, and out of the westerly quadrant.

Dr. Joachim Kuettner arrived at the airport about 1100 and after talking over conditions, I decided that the clouds did not look good enough to warrant making a single place flight in an attempt to better Bill Ivans' record of 42,000'; it also did not look good enough to the East to try any extended distance. Joach suggested that we make a two place flight, so that I could show him more about the 'wave' in this country, so he could compare it with those of Europe.

The Pratt-Read's oxygen tanks were topped, the nylon tow rope was laid out and the ship moved out to the runway. For extra clothes I put on a woolen electric 'bunny' suit, without the electricity, of course. I chose to wear this type of suit, because the arms and legs could be easily unzipped so that it was not too hot at low altitudes. I took along a leather jacket which I put behind the seat, in case I needed it. Joach wore his down lined pants and jacket and sheepskin boots, in which he suffered quite a bit, as you will learn later.

Takeoff was at 1228 and climb was made south of the airport in the vicinity of Black Mtn., partly in thermal and partly in mild wave conditions. We climbed to about 16,000' before we started towards the 'roll' clouds just to the south of Big Pine. We flew through four lift and downdraft regions before getting into the first 'wave'. The turbulence in this area was not very rough this day. While flying through the turbulent zone I had my oxygen mask on so that I could direct the tow plane by radio (my microphone was in the mask). I had both hands full, one on the stick and the other on the spoiler control. Out of the corner of my eye I could see Joach first wiping the perspiration from his glasses, and then wiping his forehead and face. He would put his glasses back on and in just a few seconds would have to start the whole procedure again. I motioned him to try to unzip his down lined pants and jacket, but he did not get the idea.

We released at 15,000' indicated, at approximately 1300 and shortly afterwards were in a very good downdraft! I dove towards the Sierra, which were only about a mile away, and soon found good lift which pegged both rate of climbs at their limits, which was 2000' per minute. This fast rate of climb slowed at 22,000' where we arrived at 1307. The outside air temperature was -26 degrees Centigrade. (All temperatures given are in Centigrade.) I now opened the door of the cockpit so that Joach could cool off a little, and become comfortable. The climb continued at about 1,000' ft. per min. without special attention to try to stay in the region of maximum lift. We arrived at 25,000' at 1309½; the outside air temperature was now -32.

The climb now slowed a little and we arrived at 35,000' at 1330 with the outside temperature at -56, but it still was surprisingly warm inside the cockpit. I had missed getting my flying boots, or rather my one boot, in the ship before takeoff, and during some

of our passes up and down the wave my boot would be in the shade and would start to get cold, so then I would just park it up on the instrument panel in the sunshine and warm it up a bit. At times, it is quite convenient to have one wood foot, as you only have one to keep warm. Everything in the cockpit that was in the sunshine, was warm to touch. Joach was now doing the flying, while I was making notes of our compass headings, temperatures, air speed and position over the ground and other data. Our canopy over our heads now started to ice up just a little, and when Joach rubbed the plexiglass a little to see better out the side, all but the nose section rapidly iced up. Evidently wiping the frost, scattered some ice crystals through the air which served as nuclei for more frost to form. The ice on the canopy never got more than 1/8 inch thick at any time, in the thickest places, which were directly over our heads.

From 35,000' on up, the climb slowed, arriving 36,000 - 1334-60, 37,000 - 1341-61, 38,000 - 1347-63. We stopped going up at 38,200 indicated by our altimeter at 1349, with the outside air temperature at -65 degrees Centigrade, which is 85 degrees below zero. Farenheit! and we were still warm inside of the ship. I did not even need to put on my leather jacket.

The insulation in this particular Pratt-Read is the aluminum foil, filled with batting, variety, and seems to be the best, perhaps because the foil reflects a lot of the heat from the sun back into your body.

At this high point we could drift lightly downwind and enter the base of the upper lenticular cloud. The top of the lower lenticular 'roll' could have been at approximately 33,000'. When drifting into the lenticular edge the lift would increase, but as our bank and turn failed to work, we could not safely enter the cloud. We worked down towards Lone Pine and then back towards Coyote, without finding any areas of extra lift. We were able to maintain our altitude without much effort, and after radio contacts with the tow plane, we flew to the north over Coyote and found mild turbulence at 37,700' -62 degrees, at 1440. We also ran into some more lift at this point, but my plans before takeoff, had been to go only to about 38,000' high, and as everything had worked well so far, I did not see any reason in stretching our luck. After all, temperatures as cold as -65 degrees Centigrade impose severe strains on the fabric, and the steel spar fittings on wood sparts, as well as many other things, so I thought it better to finish our flight and inspect the ship before encountering any colder temperatures.

At this point there was no lenticular cloud downwind, so I flew downwind to see what kind of lift there was in the second and third wave position, and explore that.

We found quite a bit of sink going downwind; sometimes as much as 2,000' per minute, and did not get into any good lift until arriving just downwind of the crest of the White Mtns., where we got good lift at 35,000'. We stayed there only a few minutes as the airport radioed that some photographers were all set up on the runway to take pictures of our landing.

I started down with the spoilers open and flying
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