

WAVE FLIGHT TO 46,267 FT.

by PAUL F. BIKLE

(Editor's note: The following account is the pilot's description of flight which accompanied his applications for new world soaring records for absolute altitude and altitude gained. Calibration of the barograph showed a maximum altitude of 46,267 feet (14,102 meters) and a low point of 3,963.7 feet (1208.1 meters) for a gain of 42,303.3 feet (12,893.9 meters). The record applications have recently been accepted by F.A.I. Contrary to a statement made in the announcement of this flight in the last issue, it takes a 3% increase to establish new altitude records. This flight was made on Saturday, Feb. 25, 1961.)

Three weeks before this flight, I had moved my Schweizer 1-23E sailplane to the Fox Airport at Lancaster, Calif., located in the Antelope Valley at the southern end of the Sierra Nevada mountains. This location was close to my home and appeared to be a favorable place to make some altitude flights, based on the results of flights made by Mr. Mancuso in this same area in 1959. In 1952 I made several flights in the wave at Bishop; my highest flight then was to 36,000 feet for my diamond altitude. I have lived in the Antelope Valley since 1952 and have observed, on frequent occasions, lenticular formations as spectacular as any that I have observed at Bishop. My 1-23E was fully equipped with a pressure-demand oxygen system, an attitude indicator, turn indicator, and double-vision panels on the canopy, in addition to the more standard instruments.

On February 23rd it was my good fortune to sit in on a discussion with Messrs. Harold Klieforth, who had done so much of the meteorological work on the mountain wave project conducted by UCLA and the SCSA, and D. Mancuso. On the evening of February 24th, Klieforth called me from Bishop to alert me to the conditions which were then developing that might produce waves the following day. The next morning, February 25th, I examined the available weather information and the indications were that a cold front would pass over the Antelope Valley in the afternoon with winds from the west or northwest of sufficient velocity to produce wave lift to reasonably high altitudes. I made arrangements

for a towplane to be available during the afternoon. By noon I could see large lenticular developments far to the north. By 2:00 P.M. these had extended south to the area of Mojave and a large, sharply defined lenticular was much in evidence about 25 miles northeast of the airport with smaller, more transient fragments forming and dissipating to the lee of the mountains just north of the airport.

After the usual preliminaries, including the sealing and installation of barographs in the sailplane and towplane, take-off was made to the west in a strong, gusty crosswind behind the 85 H.P. Luscombe towplane flown by Mr. James Moeller, who was also the SSA Official Observer for this attempt. Take-off time was 2:55 P.M. An extended tow was

made to the north to reach the area under the first large lenticular. Some wave lift was encountered on the way. An area of sink was flown through just before release was made in relatively strong lift at the southern end of the lenticular. Release altitude was at about 10,000 feet and I immediately started to work my way north in steady 500 or 600 foot per minute lift. It was my intention to fly north and west to the leading edge of the cloud, explore the lift area and then descend to about 6,000 feet to obtain a low point before climbing to altitude. After a short interval I had reached 12,000 feet when I encountered an area of rapid sink. I increased speed to 120 mph to penetrate through this area to the primary wave. Altitude was falling away at an alarming rate when I noticed an area of blowing sand on the ground off to the northeast near a dry lake. This sand was rising abruptly from the ground

