

373 MILES IN A 1-26

by HELMUT ROEMER

The following account is a description of my soaring activities while in the United States for two months this spring.

On March 17th I arrived at Kirtland AFB, Albuquerque, New Mexico, on a temporary duty assignment from Germany. I am an officer in the German Air Force since 1956 and received my pilot training in the United States from 1956 to 1958. But before that I was flying sailplanes since 1951, as soon as it was allowed after the war in Germany.

Here in Albuquerque I looked at the sky and thought this must be a beautiful place to do soaring. After being here for three days I heard about the Albuquerque Soaring Club and found out that they fly on the Coronado Airport, a few miles north of town. This place is just the perfect set-up for sailplane operation. The airport has only light plane traffic and the Sandia Mountain Range is only a few miles east of the airport. The field elevation is 5,200 ft. and Sandia Mountain is 10,700 ft.; with the prevailing westerly winds it is only an aero tow of 5 to 10 minutes and release can be made in the strong ridge lift which takes you to 12,000 or 13,000 ft. within minutes. The windspeed averages at 20 to 30 mph at this altitude and thermals are coming mixed with the ridge lift at frequent intervals. The relative humidity is so low that clouds are seldom formed below 16,000 ft., mostly around 19,000 to 20,000 ft. In the few flights I made here I could make the Gold C altitude gain seven times with a barograph and only the limited range of this barograph keeps me from getting the diamond altitude. The needle of this barograph runs off the top just below 23,000 ft. and I would have to release from aero tow at approximately 500 ft. above the airport to record a diamond altitude gain.

On Sunday, April 9th, I got an aero tow in Bob Davis' Schweizer 1-26 across the Sandia Mountain. The wind was blowing at 40 mph and I expected to find a standing wave. After an extremely turbulent tow through the rotor, release was at 11,000 ft. in the smooth wave lift. After finding the best lift area I used spoilers to push down for a low

point of 10,000 ft., but there I lost the lift entirely and had to use the turbulent rotor to get back up from 9,700 ft. to 11,000 ft.; from there I pushed upwind to enter the smooth wave lift again. The climb rate in the wave was 700 fpm at 13,000 ft. and slowly decreased to 300 fpm at 23,000 ft. At this altitude I had to leave the wave because there was no oxygen in the oxygen system; besides, I found out that the needle was almost off the top of the barograph. The whole flight took 1 hr. and 50 min. and I was not dressed for it. The temperature at 23,000 ft. was -25°F ; I felt mighty cold.

There were cumulus clouds at 15,000 ft. to the west and to the east of the Sandia Mountains with tops about 18,000 ft., but they did not influence the wave at all. The rotor was marked by a solid row of cumulus clouds but no lenticular clouds could be seen.

On Monday, April 10th, I got the 1-26 from Bob Davis and we towed off at 11:50 for a try on the 500 km. distance for a diamond. The weather seemed to be good to fly along highway 66 to the east and I took Shamrock, Texas, for a goal 570 km. away.

The Sandia Mountain gave me the first good lift and I set out for distance immediately, knowing that there were only 5 hours of thermals available. The second thermal took me up to the cloud base at 16,000 ft. The wind was blowing me to the left of my intended course and at the moment I did not want to fight it. I flew downwind and found the next thermal between Sands and Apache Springs, the glide passed south of Las Vegas, New Mexico, and I did not find another thermal until I crossed the Conchas River at 9,000 ft. and after a weak lift I sunk down to 8,000 ft., only 1,200 ft. above the terrain. South of the Gonzales Ranch I found the fifth thermal, went up to 12,000 ft. and then set out for a cloud which developed beyond the Conchas Reservoir. The lift was weak and I drifted several miles while circling to 12,000 ft. From there I glided to Logan. To the south I could see Tucumcari not far away and tried to get back on course, but the winds had turned and came from the south; so I gave up the goal and was heading to the east

for the 500 km. At Logan I reached 15,000 ft. and the eighth thermal was found east of Obar; the ninth thermal was found near Harley and I left it near that cloud base of 16,000 ft. From here I needed only one more thermal to pass over the 500 km., but the strong winds on the ground, now from the southeast, destroyed any further lift and I knew that, if I would not stay high, I would lose the lifts and would have to begin the final glide. Unfortunately there was nothing but blue sky ahead and I knew it was getting close. I stretched the glide as far as possible but the wind from the southeast now cut my glide angle down and I landed on the Francis Farm 17 miles north of Spearman, Texas; the wind was 35 mph on the ground.

The flight was 5 hours and 30 minutes and covered 308 miles; that is 494 km. instead of the 312 miles or 500 km. needed for the diamond.

After the experience I figured that I had to get away earlier from Albuquerque to have a little more flying time available in order to fly more conservatively after passing beyond 300 km.

In this first flight I had made a ground speed of 59 mph in the 1-26 with the help of a good tailwind in the first half of the flight. If I could slow down to 50 mph ground speed I needed 6:30 hrs. in the air to get across 500 km. I could not expect the thermals to last much longer than 5 o'clock in the afternoon; this again points to an earlier take-off time.

On May 5th the sky was filled with cumulus clouds at 8 o'clock in the morning. Until I found a tow pilot and could get to the airport and ready to go it was 9:45. This time I used the recently completed 1-26 built from a kit by the Albuquerque Soaring Club. At 10 o'clock I was entering a cloud over the Sandia Mountain to get much altitude to fly through the lee of the mountain range. The sink in the lee was 2,500 fpm and I lost altitude rapidly; but after a minute the sink decreased and much to my surprise I entered a wave lift at 10,000 ft. behind the mountain. I stayed in the wave lift for 50 minutes, it was very weak but finally brought me up to 20,000 ft. At 11 o'clock I turned around and headed downwind across a row of cumulus which indicated a second wave. In the second wave I flew slow to use the very little sink or almost zero condition and then flew on towards the east until