

DIAMOND C ALTITUDE IN CLOUD

by ROBERT L. PFEIFF

The following is an account of my Diamond C altitude flight made on July 23, 1960, at Jacksonville, Florida, in my Schweizer 1-26 sailplane.

Take-off was by auto tow with release at 850 feet. We were short of tow wire and had not expected to do much soaring with only 1000 feet of wire to tow with. Ed Davis had just returned voluntarily from a one hour flight from a similar tow reporting that he had spent most of the time at 4400 feet. At first it looked bad for I dropped rapidly to 650 feet where I found zero sink and then weak lift. All altitudes are above field elevation of 80 feet. A rather long struggle in sporadic weak lift got me to twenty-five hundred feet, more of the same for another thousand until finally after a half hour I found myself at 4700 feet.

The area was quite thickly populated with small round Cu that had mostly indistinct edges. It soon became evident that it didn't pay to chase likely looking clouds because by the time they were reached there wasn't strong enough lift to work. Lift was widespread, however, and I found myself circling in blue air that formed a cloud as I climbed and dissipated soon after I approached the base. The flight was typical of most that we had had in Northern Florida this spring and summer. We could maintain altitude by making the most of every bit of lift but seldom climb more than 200 to 300 feet per minute.

I had had a taste of 1000 to 1800 fpm climb on a flight two weeks previous when a thunder cloud carried me to 10,000 feet instead of setting me right back down on the ground when I took off in the face of the approaching downpour. On this one I didn't think it worth while to take the barograph and oxygen mask so lost yet another shot at the big altitude. Today I was prepared and was determined to remain aloft and ready should a friendly boomer pop into sight. It had seemed for weeks on end that the big ones were all around us but out of range.

After about two hours it looked as though I might be in luck and I did work my way up to 7000 feet in cloud but it was a collection of

small cells and very rough. I was unable to keep the lift centered properly because of being tossed about in excess of my capability to maintain complete control on needle-ball and airspeed. I was using a 24 volt DC turn and bank on 6 volts which gave me a good turn at one needle width and not too much sensitivity to turbulence. In addition to the airspeed, as a pitch attitude indicator I have a surplus British liquid inclinometer (\$2.50 from Aircraft Components) which I have found invaluable for controlling airspeed.

Upon leaving the cloud I found that quite a big collection of clouds was emptying its contents on the field and it would be a while before I could get back in to land. Conserving altitude I debated trying to locate more lift, which didn't look too inviting, or landing at another airport which was in the clear. Having a little excess altitude it appeared that it might pay to take a look at one that seemed to be doing pretty well on its own somewhat to the west of the pack. I arrived at the cloud at about 4000 feet after being up for almost three hours which allowed me to mentally log the passing of my one-hundredth hour of glider time.

It was raining heavily under the center of the cloud but it was obvious that it was lifting somewhere else just the same. Skirting around

the southern side I moved into zero sink which soon turned into 300 fpm up. Coming around towards the west side I turned into the cloud several hundred feet above the base and indicated 600 fpm up. The first turn carried me outside the cloud for a bit so I flew straight in for a while then set up my turn in smooth and steady 800 fpm climb. This soon became 1000 fpm and by about 6000 feet jumped smoothly to 1800 fpm. The rest was a piece of cake. The air was perfectly smooth, turn needle and airspeed remained locked on and the altimeter alone gave the impression of an express elevator to the observation tower. Donning the oxygen mask at 11,000 feet a quick peek at the barograph confirmed that I would be able to claim that Gold gain. With no effort at all a diamond sparkled at 17,000 and all we needed was a little to spare.

The fun began at about twenty thousand where the climb was still 1800 but the glassy smooth air had gone wild and was full of rain and hail; the din was terrific. Talk about feeling alone and detached! The cockpit filled with mist through small leaks in the canopy hinges and around the canopy latch. A quick vote of thanks to Schweizers for a rugged bird but did even it have a chance in this? The problem was to remain upright and keep the speed somewhere between 30 and 90 knots. I was at 22,000 feet and wondering whether I could head any way but northeast when I finally got around to southwest and pushed over to 70 knots.

Breaking into the clear at 21,000
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The author, second from right, with the 1-26 he built from a kit and F8U-1 Crusader he flies for the Navy. Fellow carrier pilots he has checked out in the 1-26 are, from L to R, Lcdr. R. W. Paige, Lt. J. L. Damian and Lt. J. J. Taylor.

