

# RECORD-SETTING AT EL MIRAGE

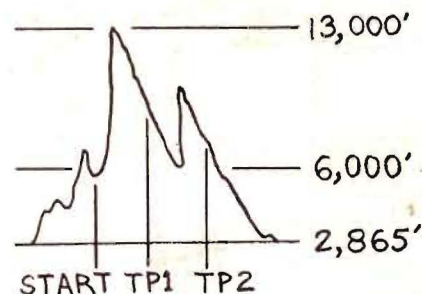
by GEORGE B. MOFFAT, JR.

During the two weeks of practice for and participation in the 29th Nationals at El Mirage, it became increasingly obvious that this was the place to try for the 100 and 300-kilometer triangle speed records. Lift made good went to over 1000 fpm surprisingly frequently (on one day I averaged 1350 fpm for 4,000 feet) with cloud bases at around 12,000 feet over the terrain. This compared very favorably with the 730 fpm which was the best I had found in a month of wearing grooves around a 100-km. triangle in Marfa, Texas, earlier in the summer.

After ten days in Pasadena following the contest to recover from it and strep throat, I got back on August 15th, put the ship together with the help of Ross Briegleb, and added some inevitable micro-balloons to the equally inevitable cracks in the HP-8. The next day, Thursday, the 16th, did not look especially promising, so I continued to micro-balloon and sand, wishing the last of my throat would go away so that I'd feel better. By two o'clock a line of shallow and rather ragged-looking cu was building at 15,000 on a heading of 15°, but as they looked a good deal less than record shattering, I decided not to fly, hoping to feel better the next day. An hour later, however, Ross landed and reported "Really bodacious" thermals under the street. With the help of Gus Briegleb we decided on Boron and Helendale airport as turning points for a 100-km.

triangle and the next hour was a whirlwind of barograph finding, camera sealing, placard writing, etc., etc.

As I towed off behind the PT-23, the clouds seemed to be dying, and on release at 4300 feet my worst suspicions were confirmed as I blew rapidly down wind in zero sink. Very slowly we climbed to 5,000 (all altitudes asl, with the terrain at about 3000 ft.) and then rather quickly in 5 m/sec. to 7,000. After flying five miles upwind to the starting line, I peeled off to cross over at 5750 feet and 135 mph. The beginning of the street was five miles downwind but on the way I met first zero sink and then 5 m/sec. lift (all lift figures are as observed on the PZL. True climbs usually average about  $\frac{2}{3}$  of these values). Since this was not good enough for a record-breaking triangle, I pressed on in lift at min. sink speed of 55 mph. Ten miles down course I found the best looking cloud with a solid 7.9 m/sec. in wide, smooth lift. I straightened up at 13,000, when it began to weaken, and left the street to head for the turn point some fifteen miles off. Driving along in moderate turbulence at 115-20 IAS, I reached the turnpoint with 20 minutes elapsed. After the usual aerobatics involved in taking pictures at high speed in turbulent air, we headed for the second turn point at the same speed. The cloud street crossed this leg about fifteen miles away. I watched the altimeter unwind rather nervously but finally slid under



Copy of barogram for Moffat's August 16th 100-km. triangular course flight which achieved an average speed of 79.77 mph.

the first cloud with 6,000.

To my consternation, lift was a feeble 2-3 m/sec. After wasting a minute trying to find a strong core, I dashed on to the only other cloud nearby to breathe a long sigh as the Crossfell slid to a firm 8 m/sec. up. While climbing I worked out the altitude needed to get home and decided to leave the thermal at 10,000. Since the lift was so good, I made one more circle for insurance and finally left with 10,400. The last turn point, arrived promptly, got photographed, and off we boomed for El Mirage at 115 mph. Things went uneventfully if roughly with the accelerometer constantly banging between zero and two G's accompanied by the usual disheartening noises of an all-metal ship driven hard.

The remainder of the flight was easy enough except for a bad bit of 10 m/sec. sink over the Shadow Mountains. After a couple of miles, however, the needle swung up to zero sink, making it unnecessary to slacken speed. We crossed the far boundary of the field with about 100 feet and 140 mph and zoomed up across the finish wires at 120. A rather hectic 270° turn while sprouting wheel, spoiler and flap brought the HP-8 down, with Ross running up to tell me that the time was 54:24 for the 70.5-mile course.

The next day, Friday, looked extremely promising for the 300-km. attempt but came to nothing when smoke from a forest fire cut off all lift half way down the first leg. This day had the best lift of any during three weeks at El Mirage. Saturday had only 5 m/sec. lift and wasn't suitable for record flying.

On Sunday the 19th things looked poor up to 1300 PDT so I decided to just fly around a bit. After getting launched at 1400 I was appalled to discover that the innocuous looking ragged street of clouds just forming

George B. Moffat, Jr., of New Brunswick, N.J., with his HP-8 sailplane at El Mirage Field, California, after making his two record-breaking speed flights.

Photo by George Uveges

