

DIAMOND PROSPECTING IN THE MOJAVE DESERT — Part I

by DR. HARNER SELVIDGE

It is likely that even natives of Texas (the original home of hot air) sometimes feel envious of the soaring conditions frequently reported in the Mojave Desert. Tales of thermals with 2,000 feet per minute lift to cloud base at 20,000 feet go unchallenged for the simple reason that they are true. Such a happy combination, however, does not happen very often, and, if the truth were known, there are not many days of the year when you find cloud base at 20,000 feet. But, if you are willing to settle for flying on poor days when the tops of the thermals are only 10,000 or 12,000 feet and the lift is no better than 600 to 800 feet per minute, very nice flights can be made. In view of this, pilots from other parts of the world might wonder why every Southern California pilot does not have a Gold C with at least a couple of diamonds. The answer is that there is a lot more to cross-country flying than good lift, and it is the purpose of this two-part article to describe some of the disadvantages, as well as advantages, in soaring over the Mojave Desert. The general problems will be discussed in Part I, and they will be further illustrated by the description of a specific diamond goal flight in Part II in the next issue of SOARING.

Soaring flights in the Mojave Desert usually start from El Mirage Airport, which lies about 55 airline miles northeast over the mountains from the city of Los Angeles. It is 80 to 100 miles by road from various parts of the city. With such excellent meteorological conditions, it was a little surprising to examine the files of diamond legs made in the United States and find that no diamond distance or altitude flights had been made from El Mirage. However, sixteen of the 64 diamond goal flights made in the United States originated at El Mirage with all but a few of the remainder from various points in Texas.

One should not jump to the conclusion that these are the only good flights that have been made from El Mirage. It just happens that they are the only ones on which reliable data

are available. For example, there have been several flights of more than 500 kilometers, including Lyle Maxey's World Class record goal and return flight from El Mirage to Independence. But in these cases, the pilots already had their diamonds.

The Unsandy Mojave

Most of us are conditioned from childhood through books and movies to visualize a desert as an endless, barren expanse of sand drifted into rolling dunes with an occasional oasis surrounded by palm trees. This may be a good characterization of the Sahara, but it is certainly a far cry from the Mojave. The latter has a few small areas of 10 or 20 square miles which answer this description and which are used as "Sahara" locations for Hollywood movies. A general impression of the remaining

forests at altitudes up to about 9,000 feet.

The desert floor is a mixture of sand and dirt which is capable of growing extremely luxuriant crops if it is supplied with sufficient water. It is not uncommon to harvest 6 or 7 crops of alfalfa per season under such circumstances. In the absence of irrigation, however, the only thing that grows is sage brush, Joshua trees, cactus and scrub pines. There is also the usual quota of poisonous reptiles, but most soaring pilots seem to feel that these are the least of the hazards. A certain amount of sporting flavor is also added by the presence of the Atomic Energy Commission's Bomb Proving Ground, about 125 miles northeast, and the rocket, bomb and experimental flight test area of Edwards Air Force Base, whose south-



Photo: Bertha Ryan

Mojave desert brush, modeled by soaring pilot Jane Harvey and pal Eric. Note the mound of dirt and sand around the base. Don't land amid these things if you can avoid it!

95% of the Mojave Desert is sandy dirt, sage brush, mountains, rocks and lava.

The desert floor itself abounds in relatively level areas with their elevations ranging from about 3,000 feet at El Mirage to 282 below sea level in Death Valley. Extremely rocky mountains and extinct volcanoes are sprinkled profusely over and around the desert, some in clearly defined ranges and some in isolated splendor. Many of these peaks are over 10,000 feet. On the desert side they are generally quite barren up to the lower timber line at about 6,000 feet, with scattered to heavy

ern boundry is just 10 miles to the north of El Mirage.

Landing Problems

We might as well face it right now — despite the excellent thermal conditions which frequently prevail, you will have to come down and land sometime. And that is where the trouble lies. Why not land at an airport? This is fine if you can reach one. There are eight airports between Bishop, the diamond goal to the north, and El Mirage, with the longest gap 40 miles. Toward Dry Lake, Nevada, the other most traveled diamond route, there are only seven,