

ELSINORE WEATHER CONDITIONS

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Fully to appreciate the problems confronting contestants at America's 21st National, one should know of the topography of the area in a half-circle of a 300 mile radius centering at the launching site in the Elsinore Valley, and at the same time be reminded of the atmospheric conditions produced by reason of this topography and which is peculiar to this area.

The several well known thoroughly tested and proven soaring sites in this country, and the world as for that matter, have in general one or another thing in common, both topographically and meteorologically. Some are best known as combination ridge and thermal sites; some, like Torrey's Pines, are dependent exclusively upon slope currents. Others as in Texas' level country, depend entirely upon thermal upcurrents.

It can hardly be said that the Elsinore site is fully comparable to any other of these better known launching places. On the contrary, the Elsinore site by reason of its geographic situation, produces a variety of conditions that are entirely different. These peculiar conditions of land and air are particularly significant when considered for tournament purposes. If one were to consider the Elsinore site for purely local flying, as actually had been the case previous to the running of the 21st National, one would find nothing very different or out of the ordinary. He would see a wide and almost billiard-table level valley; the bed of an inland sea which had gradually receded and during very recent times becoming entirely devoid of water and likely to join the ranks of Southern California's many famous dry lakes. Days of sunshine (almost 365 out of the year) produce thermals of great intensity and close distribution over this entire valley floor. It is to be remembered, however, that this is a relatively small area, perhaps 3 miles in width and 10 to 15 miles in length.

The complex effects of ocean, moun-

tains and desert have made Elsinore a Mecca for motorless flight, yet they produce a variety of conditions to challenge the most resourceful of sail-plane pilots.

The site of the 21st National is the scene of a grim, evenly-matched struggle between the forces of nature. As the thermals begin to percolate over the valley, cool sea air is drawn through mountain passes to the north and south. The cooling effect brings an end to thermals near the passes, but as the sea breeze pours toward Elsinore, the two opposing currents engage in a constant duel, shifting back and forth across the glider port. The surface wind often changes from six to ten times a day, giving starters and pilots a constant take-off problem, as the changes are impossible to foresee in most cases. But the same forces cause thermals to break out in large numbers and send gliders on their way to distant points over mountains and desert.

The City of Los Angeles has been kind enough to tint the current from the north with products of metropolitan living, and the dull gray haze is easily recognized by the pilots. Here is where the battle is thickest and the thermals are at their best. To the south of this 'smog front' afternoon lift is almost a certainty, and the air is clear except for dust devils. But let the pilot dive into the haze and lift is gone, while visibility becomes one to three miles in the smog. This 'smog front' extends in a line across the valley toward the east or northeast, usually forging southward during the afternoon. It has most characteristics of a real cold front with squally turbulence and lift ahead and cooler smoother air within the haze. Some of the best flights of the contest were made along the 'smog front.' Further south the air is again tinted with a bluish haze where sea air pours through coastal passes.

Moving northeast or east along this convergence line, the pilot finds the



Photo—June Sargent

Meteorologist John Aldrich as he appeared at the pilots' briefing.

higher mountains of the Coast Range, with San Jacinto Peak 40 miles east-north-east rising to 10,831 feet. Twenty miles to the north, San Gorgonio Peak reaches skyward 11,485 feet. Heavy cumulus clouds are common along the higher mountains, and varied opportunity for lift is found over the rugged slopes. Between these peaks is San Gorgonio Pass, where the afternoon sea breeze rushes through to cause eddies and rough air as it passes into the desert to the east. There intense desert heat offers more thermals, complicated at times by the stabilizing effect of the Salton Sea.

In view of the peculiarities common to this launching site in the Elsinore Valley, one sees by referring to the attached map the almost obvious problem confronting the contestants in the 21st National. If straight distance of any consequence was to be attained he must follow generally two trails—the same two, singularly enough, that even the pioneers in their ox wagons followed in the early days when they penetrated this country. First he had to move northeastward over into the Perris valley where his trail forked—one prong proceeding northward through Cajon Pass that would put him over the Mojave Desert; the other eastward through San Gorgonio Pass that let him into the California-Arizona desert, both desert areas being noted for their high and wide thermals.

The prevailing westerlies prompted most pilots to choose the route via Beaumont, Banning, and Cabazon, then through San Gorgonio pass, and once through this pass, the choice of routes straight east in the direction of Blythe, Phoenix, etc., or by veering more to east by north and heading in