

Oklahoma Mean Annual Temperatures — 1923-58

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Mean temperatures often mask the great range from hot to cold that typically characterizes the continental climatic environment. Nevertheless mean temperatures drawn from a rather lengthy record and closely spaced stations are often useful for both descriptive and analytical studies.

The means derived from 89 stations over a 37-year period and shown cartographically as isotherms at 1° F. intervals are presented (Fig. 1). No attempt is made to provide detailed analysis of patterns illustrated, but very brief commentary will be made on some of the obvious patterns.

The general increase in temperature from northwestern to southeastern Oklahoma is clearly related to differences in latitude, altitude, and cold front penetration. The effect of cold front penetration from northwest to southeast is clearly shown in the sharp southeastward dips of the 59°, 60°, and 61° isotherms.

Similarly the pattern of frontal penetration and strong, prevailing, and hot southwesterly winds are clearly observable in the northeastward bulges of the 60° and 61° isotherms near Miami and Vinita.

The modest significance of local relief is discernible in the areas around the Wichita Wildlife Refuge and Smithville. Doubtless an even closer network of stations and isotherms drawn at half degree intervals would reveal greater intricacies of temperature detail.

Seasonal and annual deviations from the means described may be quite dramatic, but the mean temperature map is revelatory of the gross features of Oklahoma's temperature patterns.

