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A WHITE CHRISTMAS?

One of the questions most frequently heard at the Mohonk Lake weather station is, What are the chances for a white Christmas? Even though the Nativity story unfolded in the semidesert lands of Palestine, most of us picture a snow-bound New England village as the way Christmas "really" ought to look.

The Mohonk Trust, which today operates the weather station as one of its two dozen research projects, recently completed tabulation of the 80-year record, and some of the results were unexpected. The reader must—as always—be careful about generalizations, even within an area as small as Ulster County. The Trust station is located at an elevation of 1,250 feet atop the Shawangunk Mountain ridge. More snow is to be expected at the higher elevations of the Catskills, and less snow is the rule in the Wallkill and Rondout river valleys.

The Mohonk station began operation on January 1, 1896. In the table, the figures have been arranged by decades, so as to iron out yearly variations and to suggest trends—if such exist.

	1896-1905	1906-1915	1916-1925	1926-1935	1936-1945	1946-1955	1956-1965	1966-1975
Years with snow on the ground on December 25	6	6	5	6	4	5	6	8
Amount of snow (inches)								
Maximum single year	10	10	6	6	10	8	10	19
Minimum year (not counting zero)	1	2	1.5	1	4	2	4	1
Average of years with snow	5.6	6.1	3.6	2.6	5.7	5.3	7.5	8.6
Precipitation on December 25								
Years with snowfall	1	1	1	1	1	1	0	2
Years with rainfall	1	1	1	1	3	0	2	1
Average December temperature	26.6	28.2	27.7	28.6	28.4	29.6	27.8	28.7

There has been snow on the ground on 46 out of the last 80 Christmas Days (58%). For those years that did have snow, the average amount has been 5.6 inches. The snowiest Christmas was 1970, with 19 inches, and the second whitest was 1966, with 16 inches. The average temperature for the month of December has varied, with the warmest decade being 1946-1955 and the coldest 1896-1905. The last decade, 1966-1975, was the second warmest. Snow has fallen on eight Christmas Days in the last 80 years, and rain has fallen on 10.

The two decades just finished have been the snowiest on record, not only for Christmas Day but for the winter season as a whole. The average snowfall jumped from about 50 inches per season (for the years 1896-1955) to about 70 inches (for 1956-1975). Keep this in mind when you hear people talking about the hard winters of their childhood—it may be that the snow seems deeper when your legs are shorter.

The 80-year record shows that snowfall and cold temperatures by no means go together. The snowiest Christmases were accompanied by fairly warm December temperatures, and the coldest group of Decembers produced only an average amount of snow. This confirms what most of us know from experience—that cold air is usually very dry.

Many subjective factors enter into our feeling of a white Christmas. An inch of fluff that lingers in the trees is more Christmasy than several inches on the ground. And two inches of powder are worth a foot of treacherous dirty ice.

What is the outlook for this year and future years? The smart weather observer prefers to observe rather than predict trends. While many people judge that the last four years have been "poor" winters and that we are "due" for a good one, the statistics say that the last four winters have been close to the average for the whole 80 years. It is only in relation to the exceptional snows of the 1960's that they seem skimpy.

The Trust will repeat this report as future decades pass by. In the meantime, skiers and the Florida chambers of commerce may take note and make their own plans.