

Is Santa Cruz Becoming More Chilly?

By WALLY WOOD
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Is Santa Cruz getting colder? Records compiled by long-time Santa Cruz weatherman Robert Burton say it is, by a smidgen.

Whether the weather will continue its downward drop on the thermometer, not even the Farmer's Almanac knows.

But Burton finds that the average mean temperature around here has dropped 22 hundredths of a degree from 70 years ago.

"This slight decrease of .22-degree may seem insignificant for a period of 80 years, and yet if carried on at that rate for 2,000 years, it would mean a decrease of 5.5 degrees in our mean temperature," Burton said.

That would be enough, if it happened, to cause a vast migration of people toward the equator "where there would be standing room only."

Burton has retired from more careers than most people ever experience, including former Santa Cruz city councilman, county supervisor and planning commissioner, and former teacher and horticulturist for a Thailand development project.

He has been a weatherman for more than 40 years,

keeping rainfall and temperature data at his home at 1187 Prospect Heights. He said the local station has records going back at least 85 years.

The average mean temperature among those oldest records for the 10 years between 1891 and 1900 was 56.84 degrees, he found.

The average for the 10 years between 1961 and 1970 was 56.62 degrees.

Burton is the first to say that his findings may not be significant, and that even 80 years may not be long enough to collect data on weather. "There are other factors which influence our climate, such as dust, water vapor, wind and clouds, ocean currents, smog, composition of the atmospheric gases and their percentages, and so on.

"Maybe we are just speculating," he declares.

But UCSC associate professor of geography Ray Collett agrees: the earth in general seems to be cooling off slightly.

"Various studies seem to show a slight cooling over the last decade or so," he said.

The trouble is that scientists do not agree that there is any long-range trend to the weather. Some believe the world is entering a new ice age, such as the ones which chilled the world over several times,

and brought glaciers into such areas as Yosemite Valley. Others say the world is just freeing itself from the last ice age.

Collett does not regard himself as an expert on meteorology, though he does oversee the collection of books and periodicals in the science library.

"Santa Cruz is very fortunate to have weather records which go back even 40 years at the same spot," he said in praise of Burton. "Weather is very hard to keep track of over long periods of time, and records are hard to come by that are very useful."

There is plenty of controversy among scientists as to what does affect the weather, or how it happens. It is known that the earth's weather does seem to cool off a bit following explosions of major volcanoes which spew huge clouds of gas or dust into the atmosphere, and which may not settle for months or years.

And water vapor or carbon dioxide tend to absorb the infrared heat waves from the earth itself, creating the so-called "greenhouse effect" to warm the earth.

(Continued on Page 2)

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(Continued from Page 1)

Venus, the bright evening star so visible now after sunset, is known to have an enormously high surface temperature, possibly caused by the dense layer of clouds and dust covering its surface.

But again, Collett said, there is little agreement on whether the amount of carbon dioxide or water vapor in the earth's atmosphere is increasing or decreasing.

The same is true about the aerosol spray controversy, said

George Hammond, UCSC professor of chemistry. It is possible that continued use of fluorocarbon sprays in aerosol cans could hurt the atmosphere. But no one knows if it has, or when it will.

Some weather forecasters have tried to follow cycles of weather, tied in with such astronomical phenomena as sunspots, which affect radio transmissions in the atmosphere. But Collett said their predictions so far haven't been too useful.

"And remember, some of the long-range forecasters as well as the backyard gardeners were predicting the coldest winter in recent history last year." Instead, it was a warm, mild winter.

Burton agrees that each year has its extremes. In 1974, for instance, the average temperature was 8.8 "points" below the average for nine months, with only three months being one "point" warmer than the average.

So far this year, only January

has been a warmer month than the mean average, with the other five months showing 8.36 degrees below average.

"Maybe the next fall or next year will reverse the process," he said, "because we do have some years above average.

"Santa Cruz climate is considered most favorable for human life, when heat and moisture are considered.

"It would be nice to keep it that way, but in this universe of ours, nothing seems permanent," Burton concluded.