

## Naked Creek Station Information

### Link to the Station's Data

<http://www.glenallenweather.com/climate/NakedCreek/NCreek.htm>

### Picture of the first Station

<http://www.glenallenweather.com/climate/NakedCreek/Station/FirstWxStation.jpg>

Observations from 1958 to 1967 were recorded by Lowell Koontz and were taken twice a day until 1963 and after that were taken near sunset. Marye H. Koontz continued the observations from 1968-2000 after Lowell moved to Fairfax County in 1968 to teach earth science. Some missing periods are completed in red from the observations taken at Dale Enterprise. Dale Enterprise station has an elevation of 1350 feet and the Naked Creek Station is one of the lowest points in Rockingham County with an elevation of 990 feet. The Naked Creek station is near the Blue Ridge Mountains and in the Naked Creek stream trough. Note how the stream hollow nearly parallels the mountain for about 5 miles. See the map at

<http://www.glenallenweather.com/climate/NakedCreek/Station/NakedCreekMap.pdf>

It experiences a mountain and valley breeze cycle on calm nights. See diagram at

<http://www.glenallenweather.com/climate/NakedCreek/Station/mtnvalleybrz.jpg>

This stream channels the cool/cold mountain air to the Naked Creek station on calm nights when regional winds are absent. Thus this station has a greater average temperature range than Dale Enterprise but during days with wind and precipitation the temperatures agree closely. Calm clear nights with dry air can cause a 5 to 10 °F lower temperature than at Dale Enterprise. Under rare calm nights with an arctic dry air mass and a deep snow it can be a little more than 10 °F.

### Wider view of the station's location---

#### Google Map View

<http://www.glenallenweather.com/climate/NakedCreek/Station/Maplocation.pdf>

#### Google Satellite View

<http://www.glenallenweather.com/climate/NakedCreek/Station/Satellite.pdf>

Taking observation from sunset to sunset instead of midnight to midnight causes some problems.

**See the examples below:**

The high temperature for today occurred at sunset yesterday & the low temperature came at sunset today.

On the 23rd the maximum temperature for the daylight period was 30 °F; the 44 °F temperature recorded on the records was from the sunset reading the evening before.

### **Cloud cover is based on thirds**

0 = Clear or 33% or less clouds

1 = Pt. Cloudy or >33% to 66% clouds

2 = Cloudy or >66% clouds

3 = Cloud observations were not taken. This is generally true after 1977.

### **Other Remarks:**

Snow on ground at sunset not recorded for 1958 and 1959.

The observations show a need for a better hygrometer at two different years 1959 and 1975 in the records.

Temperature observations were not as accurate until the weather shelter was built August 16, 1958.

A newspaper story was printed on the Naked Creek Station about one year later June 12, 1959 and contains much information. **See links for page 1 and page 2**

<http://www.glenallenweather.com/climate/NakedCreek/Station/page1.jpg>

<http://www.glenallenweather.com/climate/NakedCreek/Station/page2.jpg>

Official maximum and minimum thermometers were installed at the Naked Creek Station on July 3, 1959.

A Davis Monitor 2 was installed at the Naked Creek Station on August 25, 1999