

## **Jason Samenow, Capital Weather Gang, Speaks on Changes in DC Area Weather**

Jason Samenow, chief meteorologist for the Capital Weather Gang and weather editor for the Washington Post, spoke March 4 at the Village symposium, third in a series, about the changing weather scene in the DC area. Samenow noted that “weather is an imperfect science” and that one of the difficulties in predicting winter weather here in the area is that “Washington is right on the rain/snow line.” He added, ruefully, “You don’t bat 1000 in weather.”

Samenow stated that the goal of weather prediction is to manage people’s expectations so they will know “the range of possibilities.”

One of the causes of weather changes is that the concentration of CO<sub>2</sub> HAS increased ever since the Industrial Revolution. It was 280 parts per million and is now at 410 parts per million. Samenow indicated that the weather since 1976 has been warmer than normal with the past five years the warmest on record with the “strongest warming occurring in the northern part of the U.S.” There have been 22 straight years since 1997 in which the temperature has risen.

Another cause is what Samenow calls the “urban heat island effect” leading to warmer temperatures downtown. For example, at Dulles, temperatures are usually 5 to 10 degrees cooler than at Reagan National. Thus, local factors such as cities have an influence on climate. Samenow noted that the “impervious surface area” is growing, consequently heating up the environment around it.

While there has been “more record heat” there has been “less record cold.” There have been “increased heavy rain events in DC.” Washington’s wettest year ever was 2018. Average rainfall is 40 inches; we had 66 inches in 2018. While Samenow called 2018 an “outlier,” he thinks there is a chance that there will be an increase in wet years. At the same time, snowfall is declining. We still have very “big years” of snowfall, but most are below average.

We can expect more flooding as sea level rises, including in the tidal Potomac, the Chesapeake and coastal areas. There will also be an increase in “nuisance flooding,” the so-called “sunny day flooding.” We have seen a 300% increase in nuisance flooding in the past 90 years.