

## Experiencing Climate Change in Sarasota, Florida

For the most part, residents of the greater Sarasota area escaped Climate Change's wrath in 2020. From the comfort of our homes, we are spectators, having watched California burn, Texas flood and now their recent deep freeze, and the coastal sections of Louisiana and Texas devastated by an unprecedented number of dangerous tropical weather systems in the Gulf of Mexico.

In January, 2020, Margaret Jean Cannon (Sarasota) and Roy Wysnewski (the Meadows) initiated an outreach program that demonstrates to Sarasota area residents the impact of climate change through the lens of local weather and climate. By tracking Climate Change locally, we see first-hand how historical atmospheric temperature increases have influenced the transition of our temperate/sub-tropical climate to a tropical one like that in Miami, Fl.

Climatologists tell us that because of these on-going temperature increases, Sarasota's average summertime temperature is expected to increase by 0.7 C in the next three decades, increasing it from 27.9 C (82.2 F) to 28.6 C (83.5 F). As a consequence of this temperature gain, yearly Sarasota rainfall will increase by approximately 10 inches – from 52 inches to 62 inches. The Climatologists conclude that by the year 2050, Sarasota will have a similar summertime average temperature and annual rainfall as Miami, Florida, does today. This temperature /rainfall transition to a Miami-like climate by the year 2050 appropriately defines Climate **Change** in Sarasota.

The first phase of our outreach program concluded December 31, 2020, with these results:

- First, a 120-year Climate Change "picture" evolved that illustrates how the Sarasota to Miami climate transition has progressed since 1901 – see Graph #1 - The advancement of increasing record-temperatures was relatively slow during the early years but started accelerating about 1980-1990, culminating in the warmest decade, 2011-2020 on record both locally and globally.
- Second, for the Meadows, Florida, a monthly atmospheric temperature profile for all of 2020 was developed– see Graph #2 --- With eleven

consecutive months of above-normal temperatures, 2020 was judged to be the warmest of the past six years, a time period also referred to by leading scientists as the warmest six-year period on record.

- In other words, Sarasota is on track to have a Miami-like climate in the next 30 years!

Although we may have escaped the climate change devastation seen afar, the on-going record-high temperatures being experienced in Sarasota impacts residents in less-profound ways, which include, for example,

- increased air pollution leading to lifelong lung damage, life-threatening asthma attacks, and increased risks of heart disease, strokes and the development of dementia.
- significant increases in the cost of living due in part to the health issues listed above, higher energy bills, and the breakdown and premature replacement of expensive equipment like A/C compressors and car batteries.

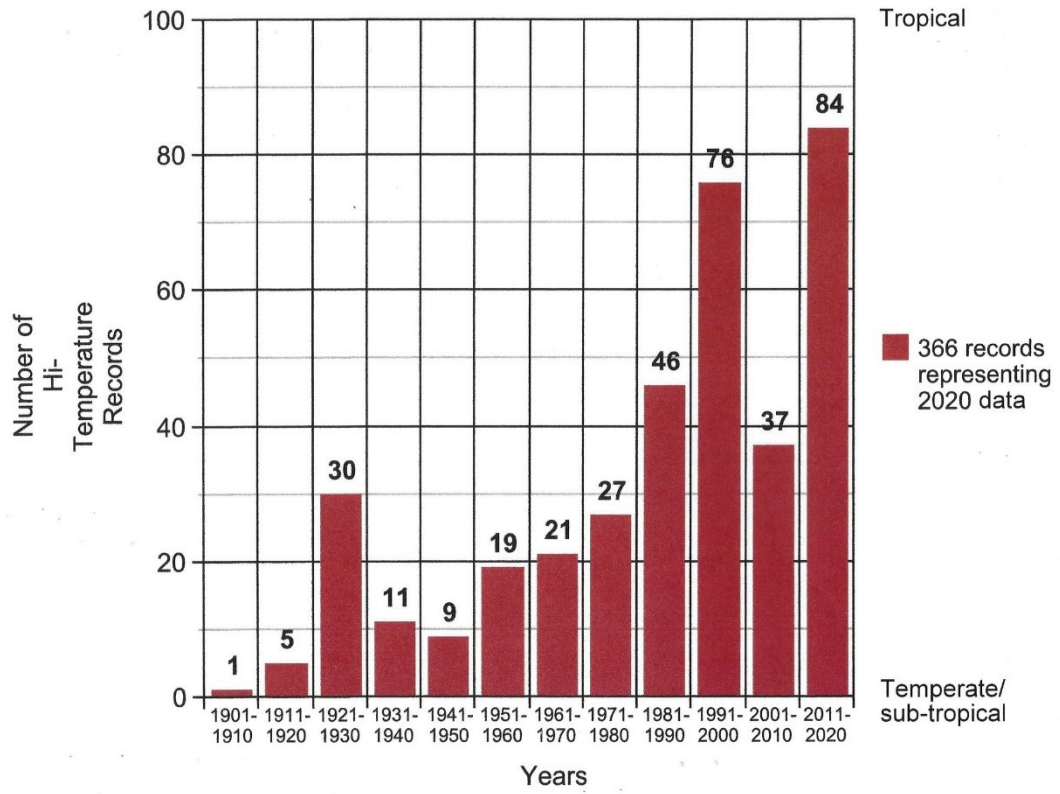
Factual evidence of on-going increases in atmospheric temperature provide a clear warning to Sarasota area residents to be extra vigilant in the months ahead. With the upper atmosphere becoming increasingly 'turbulent' as evidenced by the February 'splintering' of the polar vortex with a subsequent 'deep freeze' reaching deep into Texas, and with the Gulf of Mexico water temperatures continuing to be above normal, more frequent and more severe tropical storms are a distinct possibility in 2021.

Isn't it time to join, in whatever way possible, the worldwide movement to mitigate the accelerating climate change threat? There's still time!

Submit comments and questions about this article to [mjcannon@gmail.com](mailto:mjcannon@gmail.com); [roywys8@msn.com](mailto:roywys8@msn.com).

Graph #1

### Tracking Climate Change in Sarasota, Florida



Graph #2

Meadows 2020 High-Temperature

