Extreme Weather Events

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Hurricanes and tornadoes are some of the most destructive forces in nature. They are also the definition of pure chaos. They tend to occur with little warning and leave behind a path of great destruction. In 2005 and 2006, I peered through the dark shroud of events past, analyzing the data from 55 years of major Atlantic Hurricanes (Category 3-5) and major North American tornadoes (F4 and F5) to see what could be learned. This groundbreaking study lead to the development of a forecasting tool, called the *storminess analysis*. The results were presented in a paper, "The Art of Forecasting Extreme Weather Events", which was given at the *Second International Conference on Global Warming and the Next Ice Age* sponsored by Los Alamos National Laboratory in July 2006.

The analysis uncovered two significant trends:

- It was already recognized that major Atlantic hurricanes occur in long-term multi-decadal cycles. This analysis showed that the same is true for major North American tornadoes, they also occur in long-term multi-decadal cycles.
- The analysis showed that the annual number of major Atlantic hurricanes had an inverse relationship with the annual number of major North American Tornadoes. Peak tornado years produced minimal hurricanes. And peak hurricane years produced minimal tornadoes.

Since this was an inverse relationship, it was felt that combining both major hurricanes and tornadoes into one metric called *storminess* might be productive. Once this was done, a very intense short-term cycle became visible. A forecasting tool was then developed based on this pulse cycle. A forecasting tool is only as good as its ability to generate accurately predictions. And the best way to measure the tool's accuracy is to generate forecasts.

This was done with great success in 2006 and 2008. The third tests for this tool was for this year, 2011. The following forecast was generated over a year ago and published in the Greene County Daily World: "It is very likely (82 percent probability) that next year, the year 2011, will be another extreme weather year. If the multi-decadal cycle remains in the strong hurricane phase, the year will likely produce a minimum of five major Atlantic hurricanes. But this strong hurricane phase began in 1995 and this cycle will be coming to an end soon. If this occurs in 2011, storminess rather than producing an extreme hurricane season; might materialize as a strong tornado season likely producing a minimum of 23 major U.S. tornados (Enhanced Fujita scale EF4-EF5)."

This year already produced 19 major U.S. tornados and the year is still early. Perhaps it is time to end the long tradition of throwing good money after bad by supporting models based on the unfounded Global Warming Theory that only demonstrates success in predicting events after they happen. And instead invest in tools with a proven track record in making successful future long-range predictions.