

Weather Trends International 2009 Hurricane Forecast

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A Review of Last Year:

There were 16 named storms in 2008 which was one less than the year before and 2 greater than last year's WTI forecast of 14. Of the 16 storms, 8 of them strengthened into hurricanes and 5 became major hurricanes (WTI's forecast was for 7 Hurricanes with 4 storms reaching major hurricane status). Overall, the number of named storms was still above normal as were the number of strong hurricanes (Cat 3 or higher). The season began in late May with Tropical Storm Arthur and ended in early November with Hurricane Paloma. Notable storms in 2008 were Gustav, Hanna, and Ike. Gustav was a major hurricane before interaction with the Island of Cuba weakened the storm before eventual landfall in Louisiana. Hanna was a short-lived hurricane but a long lived tropical storm which almost single handedly refilled a drought drained Lake Okeechobee in Florida. Some areas in Florida saw over 2 feet of rain from Hanna. The most damaging storm of the year was Hurricane Ike which brought near total devastation to parts of Galveston, TX. Property damage was severe and a number of lives were lost.

The 2009 Forecast:

Named Storms

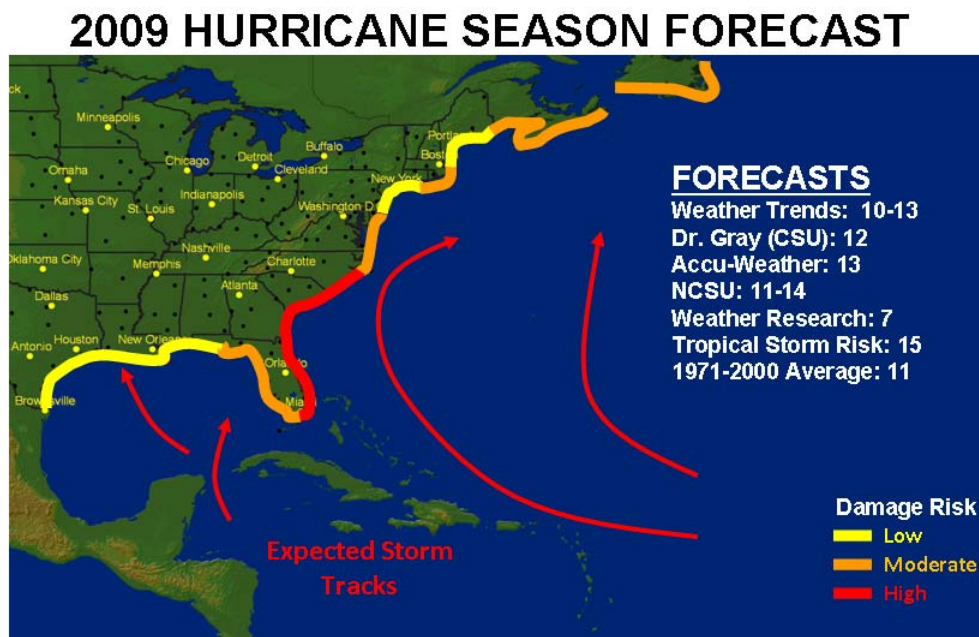
WTI's proprietary hurricane season forecast technology indicates that the total number of named storms will once again be fewer than last year. The model indicates 13 named storms, but uncertainty due to the upcoming Fall ENSO status necessitates a forecast range. The official forecast is for 10-13 named storms with 6 of them becoming hurricanes and 3 of them becoming major hurricanes. The total number of named storms will be influenced by a number of factors this year which are all pointing toward a less active season. The AMO, TSA, TNA and ENSO signals were the primary tools used in this years forecast.

The Atlantic Multidecadal Oscillation (AMO) which is basically an index depicting North Atlantic sea surface temperatures has for the first time since 1994 trended negative for the first 4 months of the year. This is significant as a negative AMO index value is strongly correlated to lower than average tropical activity.

The TNA and TSA are indexes of sea surface temperatures in the Tropical North Atlantic and Tropical South Atlantic. The TNA has begun to trend negatively over the last few

months while the TSA has trended more positive. Both of these factors also correlate to lower tropical activity.

The final factor used to build this year's forecast was the status of El Nino. Currently last Winter's weak La Nina has faded and there are some indications that a weak El Nino may form later this year as tropical waters off South America have shown some unusual warming in the last few weeks. The uncertain status of El Nino later this year introduced some doubt into this year's forecast as a rapid development of El Nino this Fall will dramatically reduce the number of named tropical systems due to upper atmospheric wind shear.

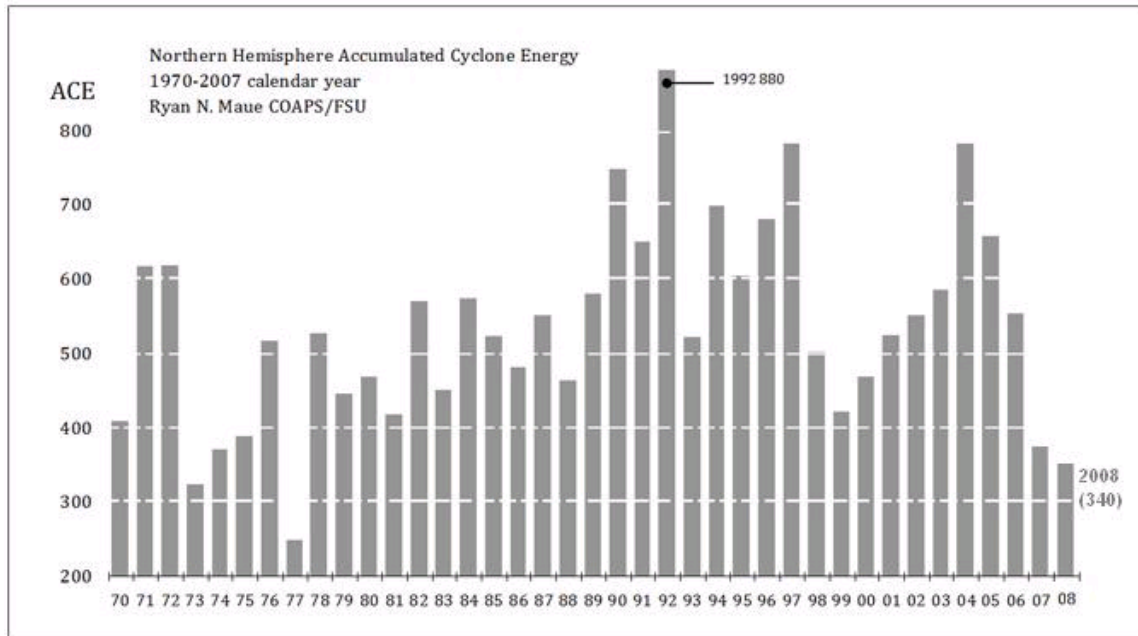


Analog years where the 4 major forecast indexes were in a similar alignment were in 1973, 1984 and 1986. Remarkably, in those 3 years there were no major Hurricane strikes in the U.S. as most storms remained in the open Atlantic and the few that were in the Gulf of Mexico tended to be weaker systems. There were 6-13 named storms in the analog years.

Readers need to be cautioned that while the number of storms may be less this year it only takes one storm striking a heavily populated area to cause catastrophic loss of life and property.

Accumulated Cyclone Energy

Though the number of named storms is the most popular Hurricane Season metric to track there is another metric that better represents the actual amount of hurricane activity. This is known as ACE or Accumulated Cyclone Energy. The last few years have seen a dramatic increase in the number of marginal storms being named. Officially, the naming of many of these systems is justified but the advent of satellite imagery and constant 24/7 monitoring of the tropics has resulted in a greater detection frequency. This increase in detection had resulted in many short-lived named storms, thus increasing the number of named storms metric. The ACE tempers the effect of numerous marginal storms when determining overall hurricane activity. The graphic below depicts the last 39 years of ACE and while last year (2008) saw above normal hurricane activity the actual value of ACE was at its 3rd lowest level in 39 years.



This level of activity was partly the result of fewer storms in the Pacific and an overabundance of named storms in the Atlantic which barely met the criteria. Looking ahead to this year one can expect a rebound in this index as the potential for a developing El Nino will lead to a greater number of storms in the Pacific and a larger probability that storms in the Atlantic basin last longer than expected due in part to them remaining out at sea.