Researchers foresee relatively quiet hurricane season

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(Phys.org) -- Researchers at North Carolina State University aren't looking for any surprises with the 2012 hurricane season – they believe that storm activity in the Atlantic basin will be in line with historic averages.

According to Dr. Lian Xie, professor of marine, earth and atmospheric sciences, and collaborators Dr. Montserrat Fuentes, professor of statistics, and graduate student Morgan Lennon, 2012 should see 7 to 10 named storms forming in the Atlantic basin, which includes the entire Atlantic Ocean, the Gulf of Mexico and the Caribbean Sea. This number is slightly lower than the (1950-2010) 60-year average of 10.5 named storms.

Of those named storms, four to seven may grow strong enough to

become hurricanes, and one to three may become a major hurricane. For the southeastern United States, there is a 66 percent chance of a tropical storm making landfall this year, but the probability that the storm will be hurricane strength is only 32 percent. There is only a 12 percent chance that a major – category 3 or above – hurricane will make landfall along the coast this year.

As for the Gulf, Xie's data indicate the likelihood of two to four named storms forming, of which one to two will become hurricanes. The researchers expect one to three of the named storms to make landfall along the Gulf, and while there is a 51 percent chance that at least one of those storms will be hurricane strength, the probability of a major hurricane making landfall is only 24 percent.

Xie stresses that although the probability of a major Atlantic hurricane striking the U.S. is expected to be less than 50 percent this year, even relatively minor storms can still cause major damage, particularly inland flooding. Therefore, coastal residents are advised to pay close attention to short-term hurricane weather forecasts as the 2012 hurricane season unfolds.

Xie's methodology evaluates data from the last 100 years on Atlantic Ocean hurricane positions and intensity, as well as other variables including weather patterns and sea surface temperatures, in order to predict how many storms will form and where they will make landfall.

The Atlantic hurricane season runs from June 1 through Nov. 30. For more details concerning Xie's methodology, input data and predictions, visit the research group's website at: cfdl.meas.ncsu.edu/research/TCoutlook_2012.html .

Provided by North Carolina State University