

2009 Atlantic Tropical Cyclone Outlook

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Summary of 2009 Forecast Results

The 2009 Atlantic hurricane season is forecast to be near normal. The expected number of named storms and hurricanes developing in the Atlantic basin and the number of landfalling hurricanes and tropical storms along the US Gulf and Atlantic coasts are not significantly different^a from the climatologies of the last two decades. From June 1 to November 30, 2009, we expect^b 11-14 named storms to be formed in the Atlantic basin (Fig.1), which is on par with climatologies of the past two decades but slightly more than that of the past fifty years (9-11 storms). 6-8 storms are expected to become hurricanes (Fig.2). There is an approximate 70 percent chance that at least one tropical cyclone will hit the U.S. Southeast Coast (Fig.3), and an approximate 45 percent chance that it will be of hurricane status (Fig.4).

For the Gulf of Mexico, we expect 3-5 named storms to be formed (Fig.5), of which 1-3 become hurricanes (Fig.6). 2-4 named storms (Fig.7) are expected to make landfall along the Gulf Coast. There is an approximate 70 percent chance at least 1 of the landfalling storms will be of hurricane status (Fig.8). The chance for at least 1 major hurricane to hit the U.S. Gulf Coast is approximately 40 percent (Fig.9).

Disclaimer: Results presented herein are for scientific information exchange only. Forecasts are expected to contain certain level of uncertainty due to scientific limitations. Users are at their own risk for using the forecasts in any decision making.

^a Significance based upon a 95 percent prediction interval of the expected number of storms.

^b Range of expected values obtained using a 95 percent prediction interval for the number of counts.

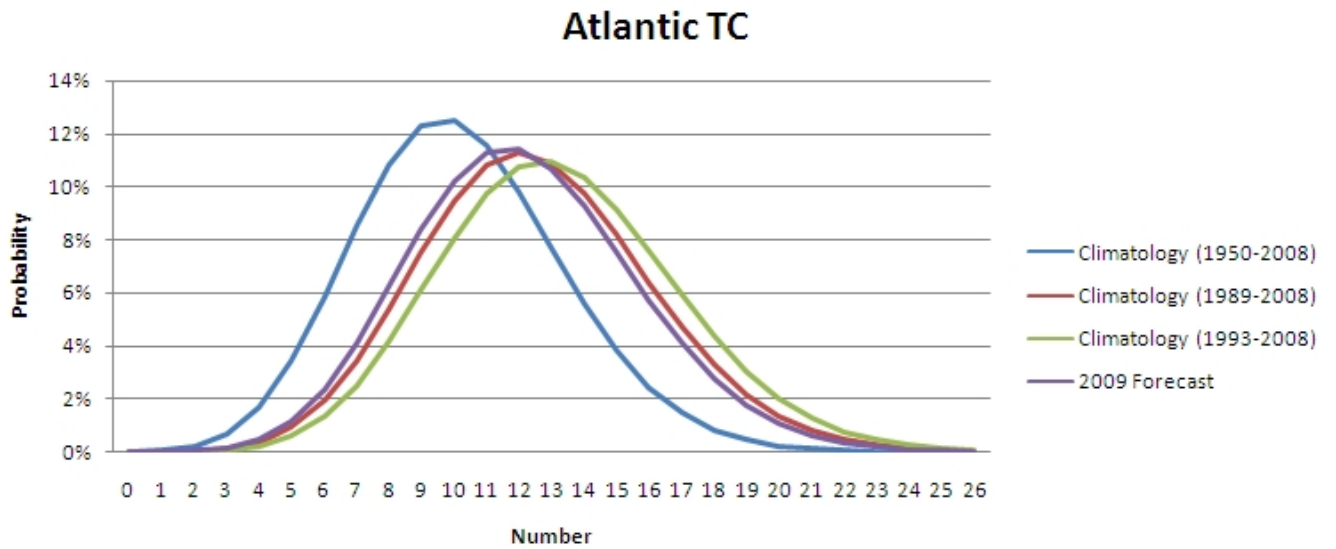


Figure 1: Count probabilities for named storms in the Atlantic basin: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), and forecast (purple).

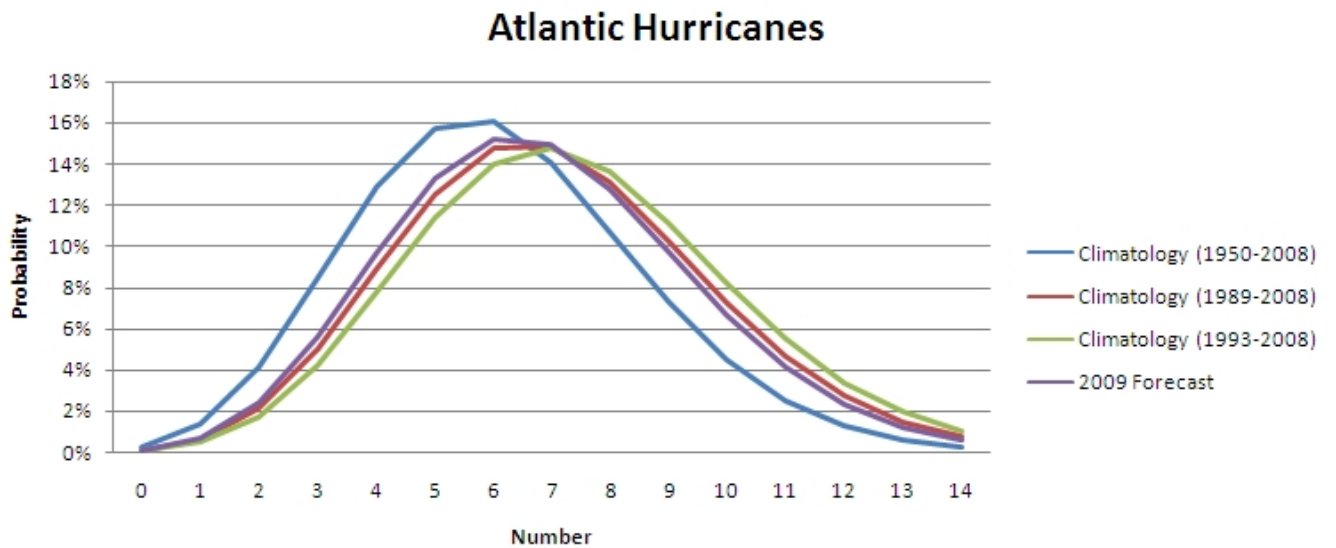


Figure 2: Count probabilities for hurricanes in the Atlantic basin: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

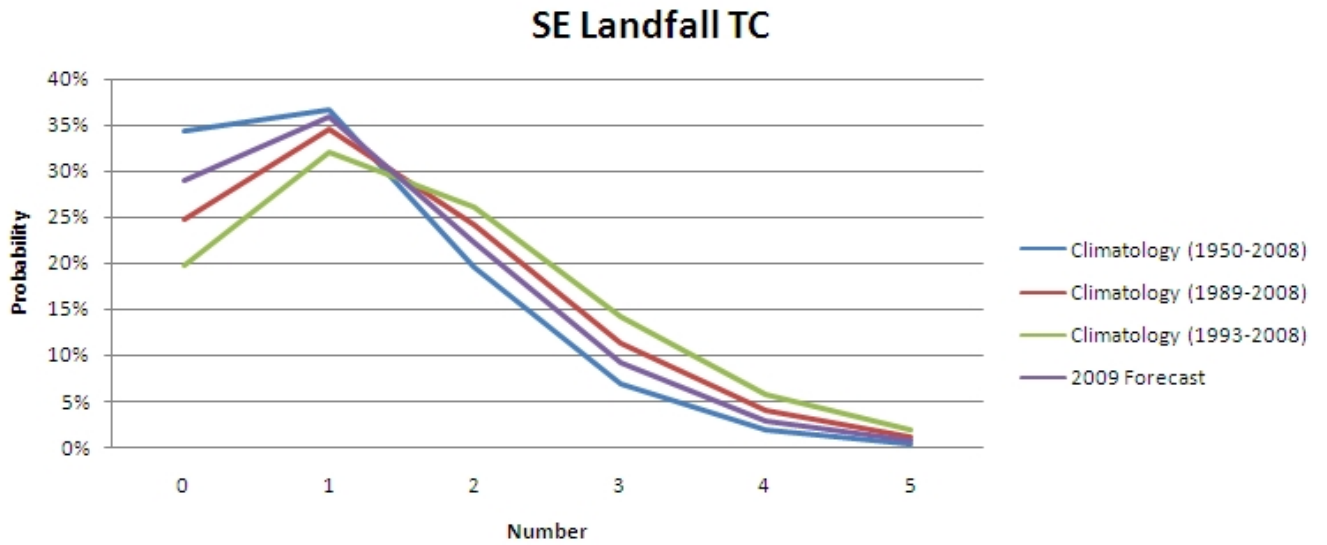


Figure 3: Landfalling count probabilities for named storms to hit the U.S. Southeast: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

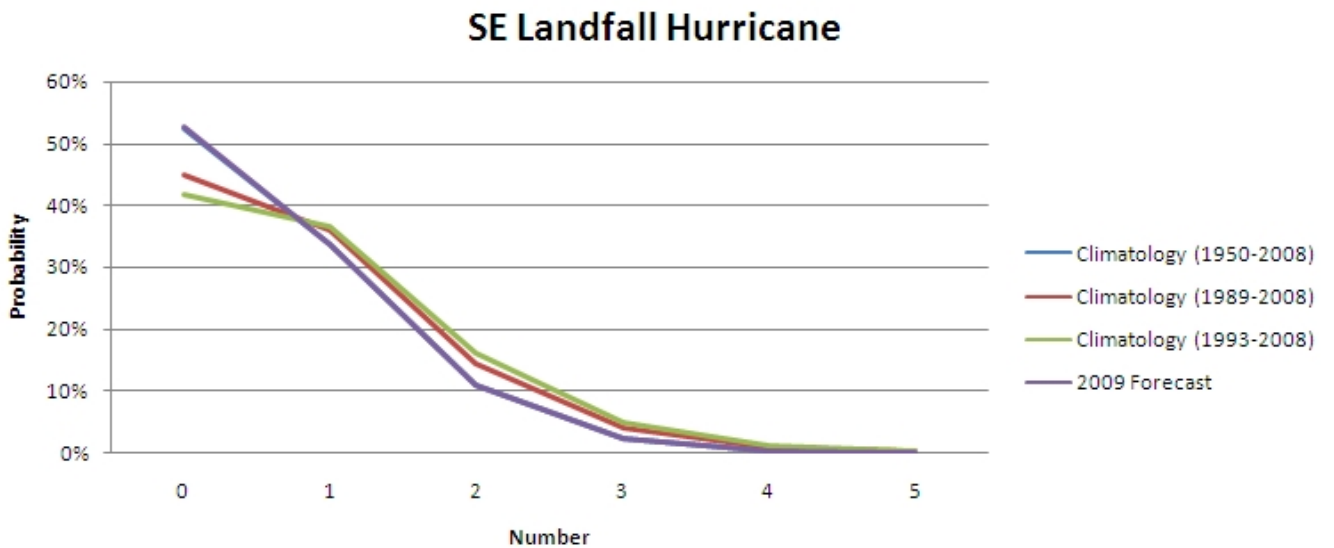


Figure 4: Landfalling count probabilities for hurricanes to hit the U.S. Southeast: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

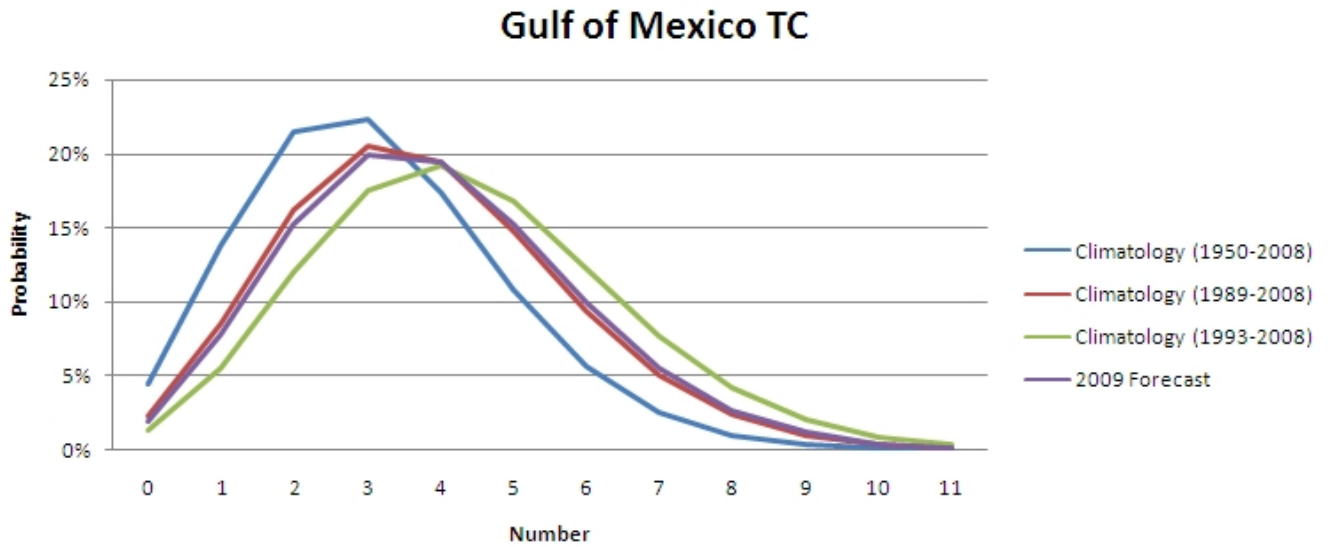


Figure 5: Count probabilities for named storm in the Gulf of Mexico: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

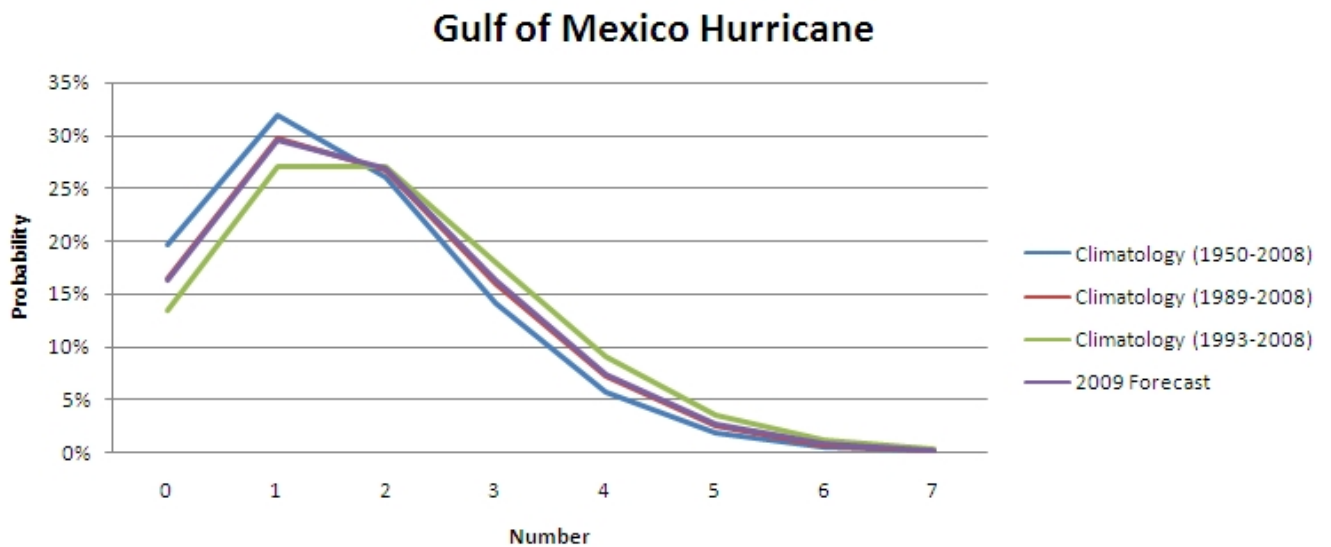


Figure 6: Count probabilities for hurricanes in the Gulf of Mexico: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

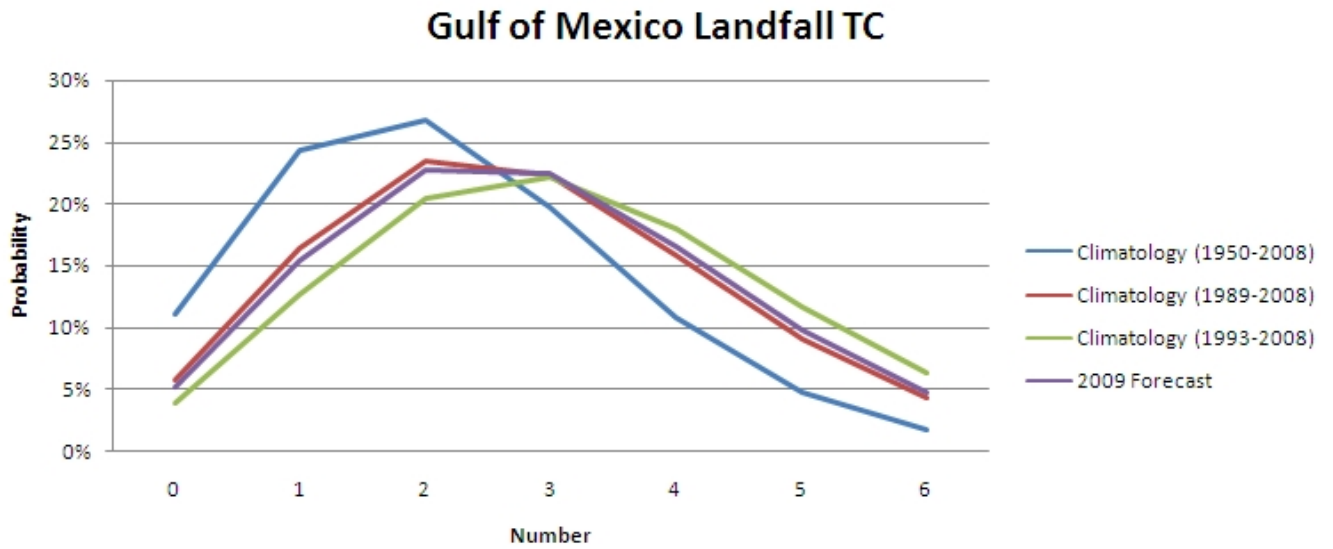


Figure 7: Landfalling count probabilities for named storms to hit the Gulf Coast: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

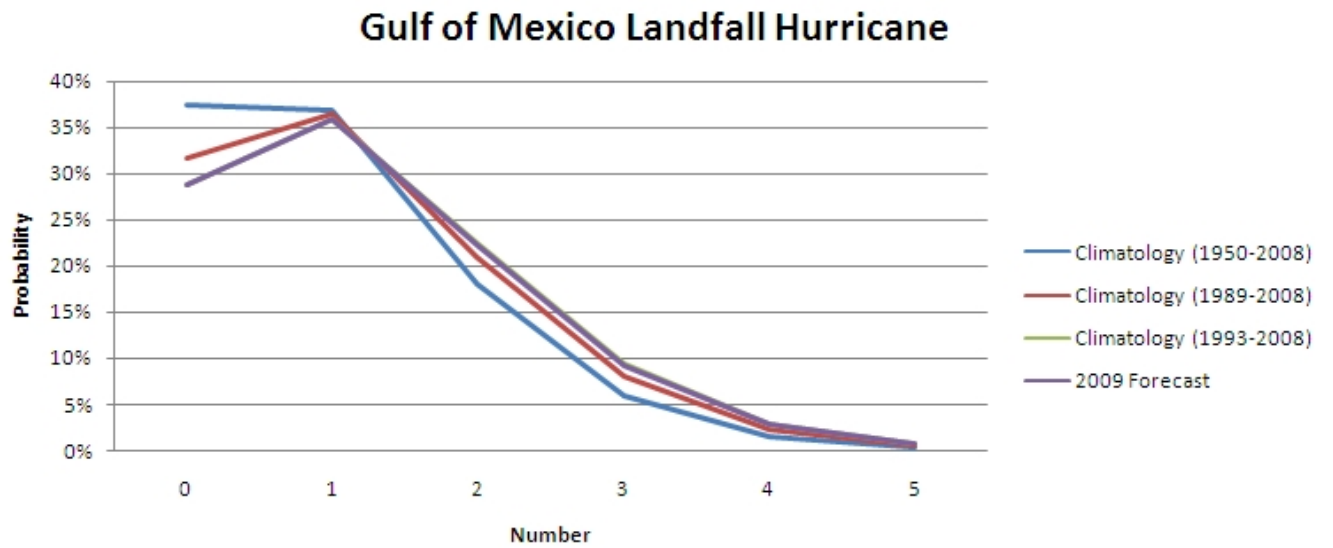


Figure 8: Landfalling count probabilities for hurricanes to hit the Gulf Coast: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

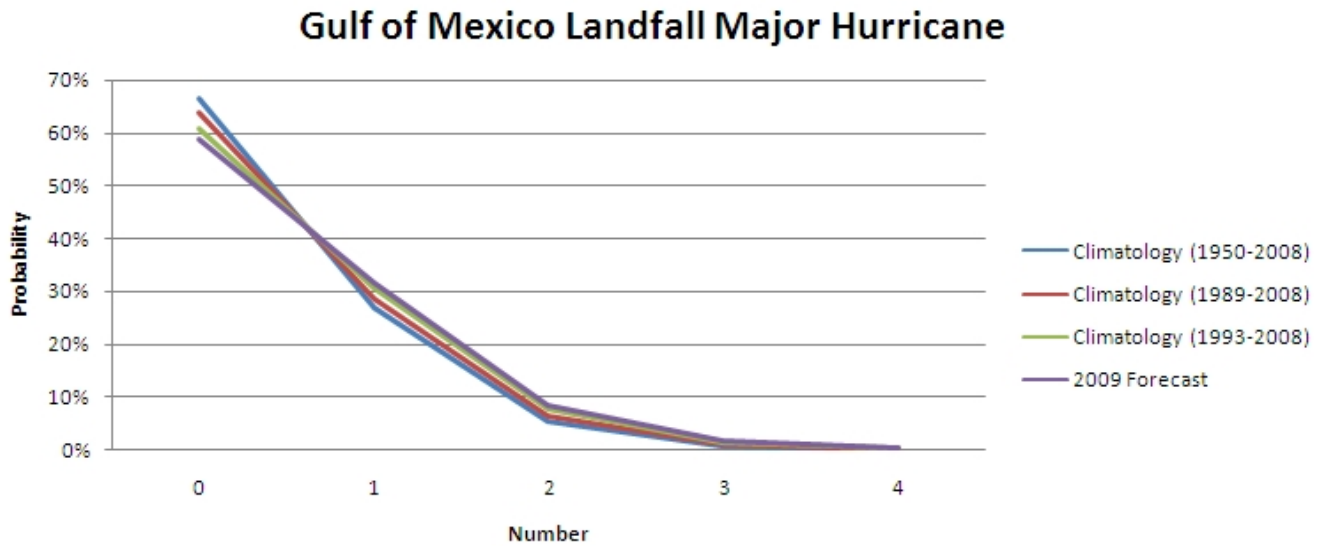


Figure 9: Landfalling count probabilities for major hurricanes to hit the Gulf Coast: past 50 years climatology (blue), past 20 years climatology (red), past 15 years climatology (green), forecast (purple).

Table 1: 2009 Forecast Variable Matrix: Note: TC=tropical storm + hurricane; Major Hurricane=Category 3-5 hurricane; Atlantic basin=Atlantic + Gulf of Mexico + Caribbean; Southeast=East coast of Florida to North Carolina; Northeast=Virginia to Maine

- Gulf Coast landfall TCs
- Gulf Coast landfall hurricanes
- Gulf Coast landfall major hurricanes
- Southeast landfall TCs
- Southeast landfall hurricanes
- Southeast landfall major hurricanes
- Northeast landfall TCs
- Northeast landfall hurricanes
- Northeast landfall major hurricanes
- Atlantic basin TCs
- Atlantic basin hurricanes
- Atlantic basin major hurricanes
- Caribbean basin TCs
- Caribbean basin hurricanes
- Caribbean basin major hurricanes
- Gulf of Mexico basin TCs
- Gulf of Mexico basin hurricanes
- Gulf of Mexico basin major hurricanes