

## ImpactWeather's 2011 Atlantic Hurricane Season Outlook

Contact: Fred Rogers (877) 792-3220 c (713) 851-7299 frogers@impactweather.com

Houston, May 2, 2011 – Although the 2010 hurricane season was quite active, with 19 named storms including 12 hurricanes, not one of those hurricanes struck the United States. However, Mexico and Belize were hard hit in 2010. One primary reason for the lack of U.S. landfalls last season was a much weaker Bermuda High, which allowed most hurricanes to turn northward east of the Caribbean and well east of the U.S. East Coast. For 2011, we're seeing a different pattern shaping up in the tropics, one that quite likely will not leave the U.S. unscathed.

One of the primary seasonal predictors we examine is the presence of an El Niño or a La Niña in the Tropical Pacific. An El Niño typically results in less favorable conditions for development and fewer named storms in the Atlantic Basin. A La Niña generally results in more favorable conditions for

development and more named storms. For 2011, the La Niña of 2010 appears to be fading to what we call "neutral" conditions this summer and fall. Neutral conditions alone would not significantly reduce the number of named storms this season. The 2005 hurricane season with 28 named storms was a "neutral" year. Other factors, such as the strength of the Bermuda High come into play during the peak season (August through October).

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Long-range models are predicting that surface pressures across the Subtropical Atlantic will be significantly higher in 2011 as compared to 2010. This suggests a stronger Bermuda High that is located farther south and west than in 2010. A stronger Bermuda High would impact the season in several ways. It would result in stronger easterly trade winds in the deep tropics east of the Caribbean. Stronger trade winds



would mean increased low-level wind shear compared to last season, which should result in fewer named storms. More significantly, a stronger Bermuda High would not allow as many hurricanes to turn northward or "recurve" east of the Caribbean and east of the U.S. This would significantly increase the risk of a hurricane entering the northern Gulf of Mexico and striking the Southeast U.S. Coast.

In addition, the lower predicted pressures across the Gulf Coast and eastern U.S. for this season would indicate that the large dome of high pressure which served as a barrier to hurricanes last season may not be present in 2011. For this summer, that high pressure area is forecast to be weaker and located farther north in the western Ohio Valley. This would open up the northern Gulf and southeast U.S. for a potential hurricane landfall this season.

Finally, Atlantic sea surface temperatures (SSTs) remain quite a bit above normal this spring. These above-normal SSTs are forecast to persist through the hurricane season. Warmer water increases the amount of heat energy available, resulting in the generation of more intense hurricanes. The Gulf of Mexico is particularly warm this spring, indicating an elevated risk of a major hurricane in the Gulf for 2011.



## ImpactWeather's 2011 Atlantic Hurricane Season Outlook (cont'd.)

Based on the factors above, we think that the 2011 hurricane season will be another active one. Though we are expecting fewer named storms than last season, we think that the risk of a hurricane landfall, particularly on the U.S. coast, is significantly increased as compared to last year.

For 2011, we're predicting:

#Named Storms	# of Total Hurricanes	# of Major Hurricanes (Category 3 and above)		
14	8	4		

The Hurricane Severity Index

ImpactWeather has developed a hurricane scale that takes into account both the intensity and the wind field size of a tropical storm or hurricane. We call this scale the Hurricane Severity Index, or HSI for short. The HSI is a 50 point scale, allowing for up to 25 points for a tropical cyclone's maximum sustained wind and up to 25 points for the size of the wind field. Based on the generally favorable environment for development in 2010, we have made some estimates of the peak HSI for this season's tropical cyclones:

Peak HSI < 10	Peak HSI 10-20	Peak HSI 21-25	Peak HSI 26-30	Peak HSI 31-35	Peak HSI 36-40	Peak HSI >40
5	4	2	1	1	1	0

For more information about the Hurricane Severity Index, please see:

impactweather.com/hsi

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With meteorologists working 24/7, the focus of Houston-based ImpactWeather is risk management and business continuity via forecast types that include offshore site forecasts, marine weather and severe weather alerts, route and tow forecasts, tropical weather/hurricane support and detailed winds/seas/swells forecasts.