

Insurance | Research

Active Hurricane Seasons: The New Normal

Although Hurricane Henri was downgraded to a tropical storm and narrowly missed densely populated Long Island, New York, Kroll Bond Rating Agency (KBRA) notes the following as we approach the peak of hurricane season:

- An increase in landfall events will continue and further challenge the risk management of property insurers.
- Hurricane Henri, which made landfall as a tropical storm in Rhode Island, will be a relatively minor loss event for the industry. However, insurers who have increased their catastrophe retentions will have earnings declines and experience surplus erosion.
- There will be significant uninsured losses for individual homeowners from storm surge and flooding.

The Winds of Change

The Colorado State University (CSU) Tropical Meteorology Project team—one of the pioneers of hurricane forecasting—updated on August 5 its Atlantic hurricane season forecast, which calls for the sixth consecutive year of above-average activity. In 2021, the Atlantic produced a pre-season storm for the seventh year in a row, following the formation of Tropical Storm Ana on May 22. In the same month, the National Oceanic and Atmospheric Administration (NOAA) released its latest 30-year average, which is re-established every 10 years. The average number of named storms, hurricanes, and major hurricanes have continued to increase (see Figure 1). The new 30-year average is over 40% higher for named storms and 60% higher for major hurricanes than the 30-year average from 1971 to 2000. Tropical cyclone activity over the last five years has witnessed a similar trend toward the "new normal."

Figure 1: Historical Atlantic Hurricane Seasons												
	Historical Average			Hurricane Season Actual Results					Forecast			
	1971 - 2000	1981 - 2010	1991 - 2020	2016	2017	2018	2019	2020	2021			
Named Storms	10.1	12.1	14.4	15	17	15	18	30	18			
Hurricanes	5.6	6.4	7.2	7	10	8	6	13	8			
Major Hurricanes	2.0	2.7	3.2	4	6	2	3	6	4			

Sources: Colorado State University, NOAA

As KBRA previously noted, the <u>2020 Atlantic hurricane season</u> saw a record-breaking 30 named storms, including 13 hurricanes and six major hurricanes. The number of named storms exhausted the 21 annual pre-designated list of names, with the last nine named storms designated with Greek letters. This was only the second time in history that the Greek alphabet was used; and it will also be the last. Following the 2020 season, the World Meteorology Organization (WMO) decided to discontinue the use of Greek alphabet names if the season's list of names gets exhausted again. Going forward, they will use a list of 21 supplemental names developed by the WMO,² which follows the existing English alphabetical naming convention, and suggests the WMO expects the need for more than 21 names in a hurricane season will be more typical than in the past.

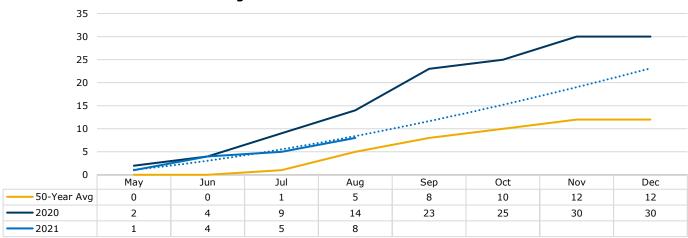
As with 2020, named storms in 2021 are far outpacing the historical average (see Figure 2). While CSU's latest forecast calls for 18 named storms (down from its previous forecast of 20), other forecasts range between 20 and 25. A scenario in which there are 20 named storms would rank 2021 in the top three active hurricane seasons of all time, following 2020 and 2005.

¹ https://www.accuweather.com/en/hurricane/average-hurricane-season-has-a-new-normal/905558

² https://weather.com/storms/hurricane/news/2021-03-15-hurricane-laura-dorian-names-retired-wmo

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Figure 2: Cumulative Named Storms



Sources: NOAA, KBRA

Climate Change and Increased Landfalls

KBRA also notes that while there are differing views within the scientific community as to whether climate change is helping to generate increased frequency of hurricanes, there is general consensus that climate change has contributed to greater storm severity. The Center for Climate and Energy Solutions (C2ES) states that "Although scientists are uncertain whether climate change will lead to an increase in the number of hurricanes, there is more confidence that warmer ocean temperatures and higher sea levels are expected to boost their intensity and impacts. Stronger hurricanes will be far more costly in terms of damages and deaths without action to make coastal (and inland) areas more resilient." Of the 30 named storms in 2020, a record 12 made landfall in the U.S. This trend has continued into 2021, as five of the first eight named storms have made landfall in the Americas.

Figure 3: 2021 Atlantic Hurricane Season - Named Storms Landfalls										
Name	Dates	Max Wind	Category	Landfall	Geographies Affected					
Tropical Storm Claudette	June 19 - June 22	45 MPH	TS	LA	AL, GA, LA, MS, NC, SC					
Tropical Storm Danny	June 28 - June 29	45 MPH	TS	SC	GA, SC					
Hurricane Elsa	July 1 - July 9	85 MPH	Cat 1	FL	Caribbean, East Coast U.S.					
Tropical Storm Fred	Aug 9 - Aug 20	65 MPH	TS	FL	Southeastern & Northeastern U.S.					
Hurricane Grace	Aug 13 - Aug 21	120 MPH	Cat 3	Mexico	Caribbean, Mexico					
Hurricane Henri	Aug 20 - Aug 23	90 MPH	Cat 1	RI	New England, NY, NJ					

Sources: NOAA, News Reports, Insurance Information Institute, KBRA

Uninsured Losses Increasing

Due to the significant increase in population, properties, and property values in coastal areas, exposure to flooding (which is often uninsured) is rising—which is likely to drive up flood losses, even in the absence of more frequent and/or more severe flooding events. "After Hurricane Harvey in 2017, CoreLogic estimated that 70% of the flood damage was uninsured," said Dr. Howard Botts, executive and chief scientist at CoreLogic. Although industry insured loss estimates from Hurricane Henri are likely to be minimal, it is likely that individual homeowners will experience significant uninsured losses from Hurricane Henri, which produced dangerous storm surges and heavy rainfall in parts of Long Island, New York; New Jersey; Connecticut; Massachusetts; and Rhode Island (see Figure 4).

³ https://www.c2es.org/content/hurricanes-and-climate-change/



Source: NOAA

In regard to personal property, standard homeowners insurance does not protect policyholders from flood losses and storm surge, creating a potential coverage gap. Instead, homeowners must rely heavily on the National Flood Insurance Program (NFIP) for coverage from catastrophic flooding. The NFIP allows property owners in certain communities to purchase flood insurance through the federal government. And while homeowners in certain flood zones are mandated to buy flood insurance, in the non-mandated flood zones (which are still exposed to significant flood risk), less than 10% of homeowners purchase an NFIP policy. Furthermore, even for those who purchase NFIP insurance, the amount of coverage is limited and commonly inadequate relative to the value at risk. Going forward, if private flood insurers develop a more robust market for flood insurance, KBRA believes uninsured losses could decline and reduce reliance on the NFIP.

Looking Ahead

Entering 2021, the property/casualty (P/C) insurance industry had achieved record levels of policyholder surplus, which KBRA believes is sufficient to absorb catastrophes similar to those of the past five years, even in combination with a moderate investment downturn. However, elevated catastrophe activity over the past five years has steadily driven reinsurance pricing higher and some primary insurers with unfavorable loss experience chose to restructure their reinsurance programs to manage sharply rising costs. In some cases, retentions were increased, while total limits were reduced. If the recent pattern of active hurricane seasons has ushered in a new reality of natural catastrophes, P/C insurers (especially smaller regional companies) will need to redouble their focus on underwriting profitability and risk management to protect their financial strength.

Contacts

Fred DeLeon, Senior Director +1 (646) 731-2352 fred.deleon@kbra.com

Carol Pierce, Senior Director +1 (646) 731-3307 carol.pierce@kbra.com

Peter Giacone, Managing Director +1 (646) 731-2407 peter.giacone@kbra.com

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