

2022 CAT SNAPSHOT



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2022 had 63 events, compared to the over 70 events seen in each of the past 2 years, but the cost was still above the 10-year average. More than half of 2022's total cat loss was from the single defining event of the year: Major Hurricane Ian. Alongside Hurricane Ian, inflation and global political unrest continued to make headlines. Below we review some of the most significant events to impact the industry.



HURRICANE

The Atlantic Hurricane season was predicted by multiple organizations to be an above-average season with a La Niña persisting over the tropical Pacific, warm ocean temperatures, and weak trade winds setting up a strong season. Despite perfect conditions for hurricane formation, the year's activity fell in line with the historical average. There were 14 named storms, of which 8 were hurricanes and 2 major hurricanes. For the first time since 2014 there was no activity before the official start of hurricane season on June 1st. The first storm was not named until June 5th when remnants of Pacific Hurricane Agatha formed into Tropical Storm Alex. From July 3rd to September 1st there was a quiet period in the Atlantic. For only the 3rd time in history, August did not have any named storms.

Half-way through September, Major Hurricane Fiona hit Nova Scotia, Canada as a post-tropical cyclone with a pressure of 932mb, becoming the lowest recorded pressure since 1970 for that region. It could be one of the costliest hurricanes in Canada with wind speeds equivalent to a category 2.

When activity started to pick up in the Atlantic in late September, Major Hurricane Ian formed and brought devastating losses to Cuba and the US. Forming September 23 and making landfall in Cuba as a category 3 storm, it took out the power grid for the entire island. Moving through the Gulf Coast, Ian intensified over very warm waters and made landfall at Cayo Costa, Florida with 155mph winds, only 2mph short of being a category 5 hurricane. Ian made a third landfall in South Carolina as a category 1 storm. Losses from all other US cat events that occurred this year combined are less than the total loss reported from Hurricane Ian so far.

Ian highlighted issues around hurricane forecasting and rising sea levels. Only 36 hours prior to landfall Hurricane Ian was expected to hit Tampa, about 90 miles north of its landfall location. When the forecast track shifted south, the expected landfall also moved to be earlier, which meant that many residents of the Ft. Myers area were not given adequate time to properly prepare. Communicating uncertainty in hurricane forecasting has proven to be difficult, as the public needs to heed warnings but acknowledge forecasts are inherently uncertain. Official evacuation orders for Lee County were announced on Tuesday morning, about 30 hours before landfall, providing little time for the residents there to get out or prepare. This storm brought strong winds, but luckily for Florida the strongest winds were on the ocean side of the eyewall at landfall. The winds decayed some, but the damage was made worse by the immense flooding from storm surge, 15ft in some areas, and the 12 inches of rain Ian dropped in parts of Florida which took out entire homes and businesses.

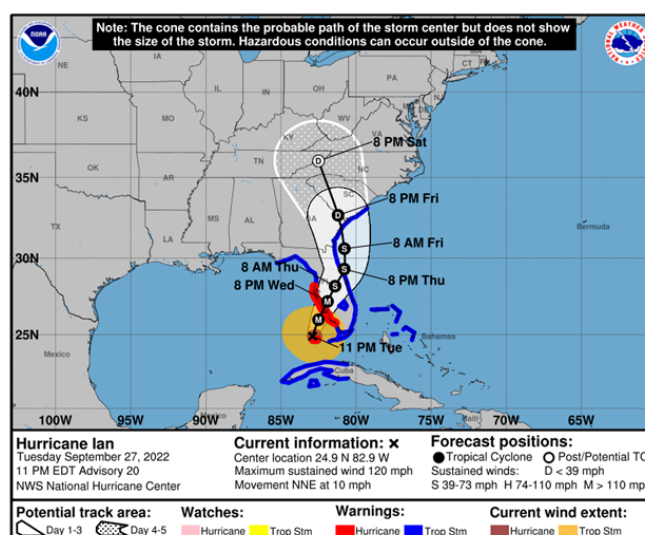
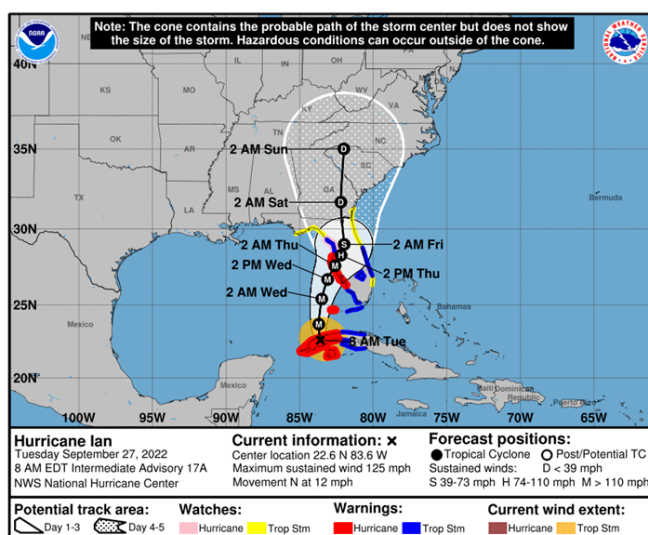


Figure: Ian's forecast Track shifted over 70 miles to the SSE and landfall more than 18 hours sooner between 8AM and 11PM on Tuesday, Sept 27th. While uncertainty is expected in hurricane forecasting, the shape of the Florida peninsula can easily magnify small shifts in a track.

Unlike the Atlantic, the Pacific Ocean had a slightly above-average year for hurricanes with 19 named storms, 10 hurricanes, and 4 major hurricanes. It is worth noting California found itself in the path of Hurricane Kay. The southwest portion of California experienced some tropical storm conditions, and it extended the extreme heat in the region.



WILDFIRE

Similarly to hurricane season, the wildfire season had peak conditions but few events were seen. There was only one fire among the 2022 cat events: Hermits Peak fire in New Mexico. It was the most damaging fire on record for New Mexico, burning over 340,000 acres, but due to lower population density than some of the recent California fires, industry impacts were limited. Since 2014, this is the first year to only have one wildfire cat event. Even though 2022 was light on events despite conditions that were conducive to wildfires, it remains to be seen if 2022 represents a return to the "old normal".



SEVERE AND WINTER STORM

A total of 59 combined severe and winter storm events had a loss of around 29 billion dollars, though losses are still being tallied from the extreme cold and snow event that occurred over Christmas. The aggregate loss amount is above the average since 2011 but less than what has been seen in the last 2 years. Another outbreak of tornadoes in December occurred this year with Louisiana taking the largest hit. This previously rare occurrence of destructive December is becoming more common. Since 2018, a tornado outbreak has been recorded in every December. The Kentucky tornadoes of 2021 were the first time a billion-dollar event occurred in December. The winter storm over Christmas will make it back-to-back years with December having billion-dollar events. Should the industry reconsider the “norms” of severe storm seasonality?

Though details are still emerging, this year in review would be incomplete without highlighting the winter storm that trekked across the US over the Christmas holiday snarling travel, burying the northeast in snow, and plunging many southern states into a deep freeze. Some of the worst damage was in Buffalo, NY which received 43 inches of snow trapping people in homes and cars, knocking out the power, and preventing emergency services from responding to calls. The Buffalo airport reported zero miles of visibility, shutting down the airport, and adding to the over 10,000 cancelled flights. Though this storm had parallels to the 2021 Texas Freeze event with rolling blackouts and prolonged cold, both the severity and duration were much lower, and thus we do not expect anything close to the approximately \$15B of loss incurred from that event.

OTHER

Increasing the pain of this year’s cat events, US consumer inflation hit its peak this year in June at 9.1%. The cost of construction and gas prices have also been on the rise. One billion dollars of loss was once the mark of a significant cat event, but those events have been on the rise – perhaps it’s time we consider \$2b the new definition of significant loss (in the US). The supply chain, still feeling the effects of the pandemic, was adversely affected by political unrest and is slowly recovering but adding to the rising cost of cat events.

Outside of the US from February 16th through the 22nd three storms brought strong winds and flooding across Europe. Dudley was first with wind gust as high as 80mph. The next day, Eunice came in stronger with a gust at 122mph measured at The Needles, Isle of Wright. The damage from Eunice is the most expensive since Kyrill in 2007. A few days later, a weaker system Franklin came through Europe. These systems of extra-tropical cyclones were powered by the strong jet stream, the driving force behind such a cluster of events. Several countries broke records in 2022, Australia and South Africa experienced historic flood losses and France had the highest annual hail losses. The greater Brisbane area measured over 26 inches of rain in a 3-day period and in France storms Maya and Qiara were the main contributors to the high losses. These losses were significant at a national level and added to renewal pressures in each respective country.

Across multiple perils, we saw perfect conditions for an active year, but in the end, frequency was at or below average. Severity on the other hand told a different story with Hurricane Ian’s never before seen cost and another active December in the books. With La Nina’s grip expected to fade over the coming months, we might have hope for a reprieve from this active period of catastrophes in 2023.