Howden Tiger

2023 Cat Review

Unraveling the Unusual

HOWDEN

Key takeaways

In the wake of a series of noteworthy cat years, the re/insurance industry held its collective breath as 2023 unfolded. Although the year resembled its predecessors in many aspects, the manner in which losses accrued presented a distinct narrative. While the US continued its streak of major hurricane landfalls, a near miss in Tampa alleviated potential losses. Instead, the East Pacific took center stage, unleashing a barrage of powerful hurricanes. Severe weather wreaked havoc from Dallas, Texas, to Veneto, Italy, with a notable impact on reinsurers globally. Let us delve into the specifics of the global cat activity in 2023 by peril.

Total Insured Nat-Cat Losses by event size

Sources: Swiss Re Sigma, Cresta Clix, PCS
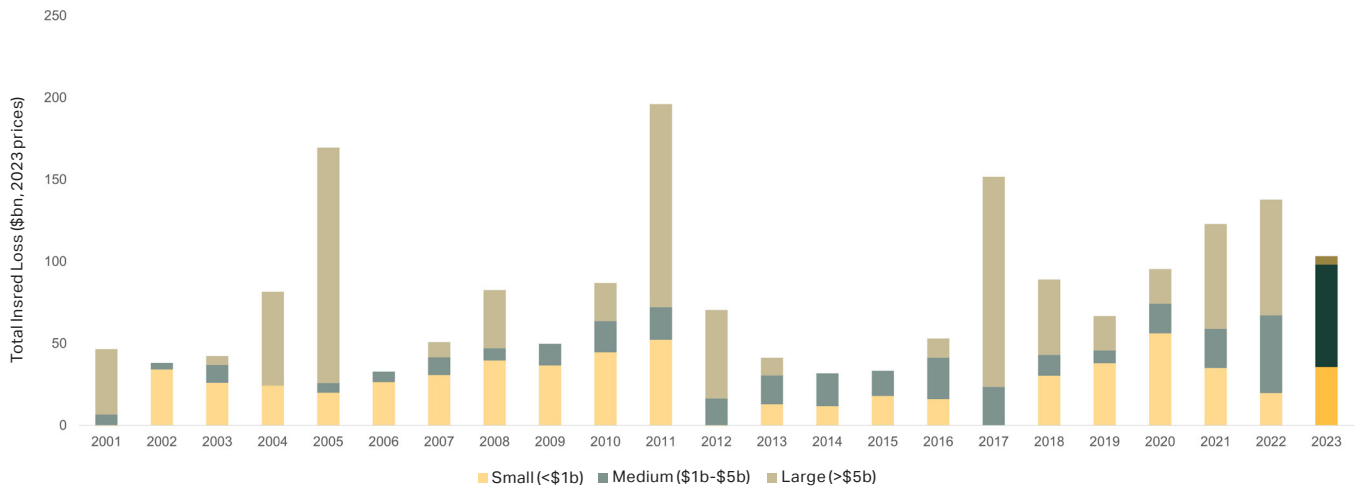
28

Global cats with at least $1B USD loss

66

Unique severe and winter storm events in the US

7.8

magnitude of the strongest rupture from the Turkey Kahramanmaras event

Hurricane

The Atlantic Hurricane season began unusually with two storms forming in June for the first time in recorded history. With a total of 20 named storms, 2023 ranks as the fourth most active season since 1950. Surprisingly, the number of hurricanes (7) and major hurricanes (3) of category 3 or higher adhered closely to the 30-year average. Most named storms, fortunately, stayed offshore.

The tenth named storm of the season followed in the footsteps of Ian (2022), Ida (2021), and Irma (2017) as another major 'I' storm receiving the name Idalia when it strengthened into a tropical storm on August 27th. As it traversed the Gulf of Mexico, intensified into a Category 4 hurricane before making landfall in Florida's Big Bend near Keaton Beach as a Category 3 on August 30th. With maximum sustained winds of 125 mph and storm surge of 7 to 12 feet, Idalia ties as the strongest Florida Big Bend storm to date. The storm made its way through Northern Florida and southern Georgia as a hurricane then into the Carolinas and Virginia as a tropical storm. It emerged in the Atlantic on August 31st with estimates for total industry losses ranging from 2.2 to 5 billion.[a] Ultimate loss from Idalia was mitigated by the landfall location due to Florida's Big Bend region being much less populated than other Gulf Coast regions.

Another unprecedented event, Tropical Storm Hilary, marked the first tropical storm to cross into California in the last 26 years. The storm led to record rainfall in California causing major road closures and washouts due to flooding and landslides. Hilary caused an estimated over $600[b] million in losses across California, Arizona, and Nevada.

Hurricane Otis set a record as the strongest landfalling hurricane in the east Pacific, and most notable for its unpredicted rapid intensification which showcased wind speed increases of 115 mph in just 24 hours. Making landfall on October 25th near Acapulco Mexico as a category 5, Otis packed sustained winds of 165 mph causing devastating damage throughout Acapulco.

Model Forecast Intensity for Otis

Initialized UTC 24 October 2023
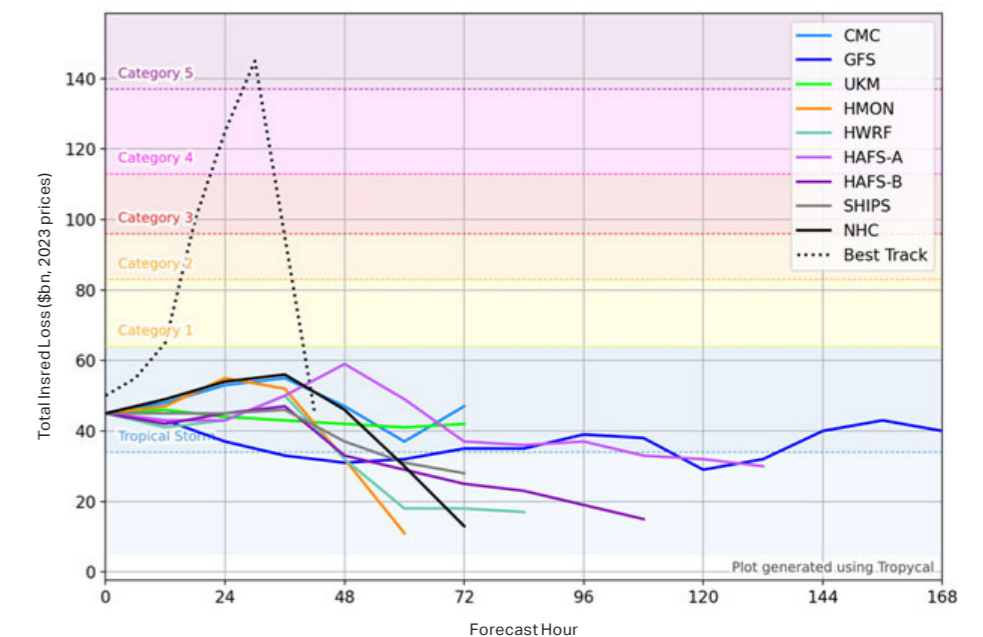
a. RMS, Verisk Weigh in With Insured-Loss (www.claimsjournal.com)
b. KCC estimates privately insured loss (www.reinsurancene.ws)

Earthquake

Earthquake activity, though in seismically active regions, raised concerns among insurers. The industry faced the task of balancing coverage availability with the need to manage earthquake risk effectively.

We saw major earthquakes in 2023, including the multi-rupture Turkey Kahramanmaraş event, comprised of separate but connected 7.8, 7.5 and 6.6 magnitude events in February. Roughly 57,000 were killed, making it the fourth deadliest earthquake of the 21st century. PERILS estimates this to be the costliest nat cat globally at $5.2 billion, but over $100 billion of economic loss due to the impact the events had on critical infrastructure and business operations. This illustrates the unfortunate pattern of major earthquakes hitting vulnerable regions that contain low insurance penetration.

Along with the Turkey events, 2023 brought deadly earthquakes in Morocco, Afghanistan, and Nepal. Such events have uncovered a large issue: the lack of seismic construction code compliance. Furthermore, catastrophe models are challenged to focus on better identifying multi-rupture scenarios, local soil features that may amplify losses (such as those observed in the Hatay basin in Turkey) and more accurately model the vulnerability of the building stock in regions where there is a lack of code compliance.

Turkey, 2023

Severe Convective and Winter Weather

The 2023 severe weather season began in earnest in February with a major US winter storm in the northeast topping $1b in loss.

The large events kept rolling across the US with every month experiencing at least one billion-dollar storm between February and August, and most months experiencing even larger $2-4B industry events. By the time Memorial Day came about in May the US had already exceeded the prior 15-year average annual loss from severe convective and winter storms. The year was by far the costliest year for this peril in the US with high frequency of mid to large size events leaving much of the loss to be retained by primary carriers.

Not only did the US experience significant severe weather, but the peril was active in other regions as well. Notably, Northern Italy saw dangerously large hail as part of a series of storms rolled through the region throughout July. Hailstones as large as tennis balls pelted the region of Veneto. The storm may have caused more than $3B (Eur) in insured loss according to estimates at Howden Tiger.

Flood

Numerous atmospheric rivers impacted the West Coast and brought significant flooding to California in March. The first atmospheric river brought 13 inches of rain to central California and several feet of snow to the mountains on March 10th and 11th which led to predictions from the National Weather Service of "widespread considerable flooding impacts."

Just a few days later the next atmospheric river caused a state of emergency declaration in 48 of the 58 counties of California. A third atmospheric river occurred before the month ended. The lower foothills received 6 inches of rain and in the mountains had 3.5 inches (90mm) of snow accumulate over 24 hours. These consecutive atmospheric rivers caused the drought coverage for March to drop to 36% and was the first time no part of California was classified as in exceptional or extreme drought since 2020.

Europe's Slovenia and Italy floods are worth noting. In Italy, the Emilia Romagna region had a flood event from May 15th to May 17th. The region was previously in a drought, making it harder for the ground to absorb the rain. Most areas received 8 inches (200mm) of rain while 20 inches (500mm) of rain fell in Forli, Cesena, and Raveena. In 36 hours, the area received half their annual average rainfall.

Wildfire

After recent years of significant losses in the US from California wildfires, some reprieve was felt. California managed to avoid any major wildfires, yet still 2023 was one of the largest wildfire seasons in history by area burned globally.

Canada's wildfire season began unusually strong. Before the end of May, more than 1 million hectares had burned across Canada, releasing an unprecedented amount of smoke into the United States. By June 5th, the total area burned in Quebec was approximately 600 times higher than the annual average according to Quebec's fire agency (SOPFEU). Notably, on June 7th the US recorded its worst day of smoke pollution on record, with pollution in New York reaching over 5 times the national air quality standard. This activity persisted throughout the season, with 798 fires active on September 27th and 382 of those were out of control. By the end of the season the total area burned was more than 7 times the annual average. Most of the fire activity occurred in northwestern Canada with relatively little property damage due to the low population density in the hardest hit areas.

Maui, as well as parts of Hawaii's big Island, also suffered a historic wildfire in 2023. Beginning on August 8th, the fires spread into the historic town of Lahaina destroying more than 2,500 homes. Authorities have not identified the initial cause of the wildfires, but the national weather service cited low humidity and strong winds, driven by Hurricane Dora offshore, as large contributing factors to the spreading and extraordinary levels of damage and loss. With the death toll reaching over one hundred, the 2023 Maui wildfires are the deadliest US wildfires in more than a century, exceeding the 2018 Camp fire levels.
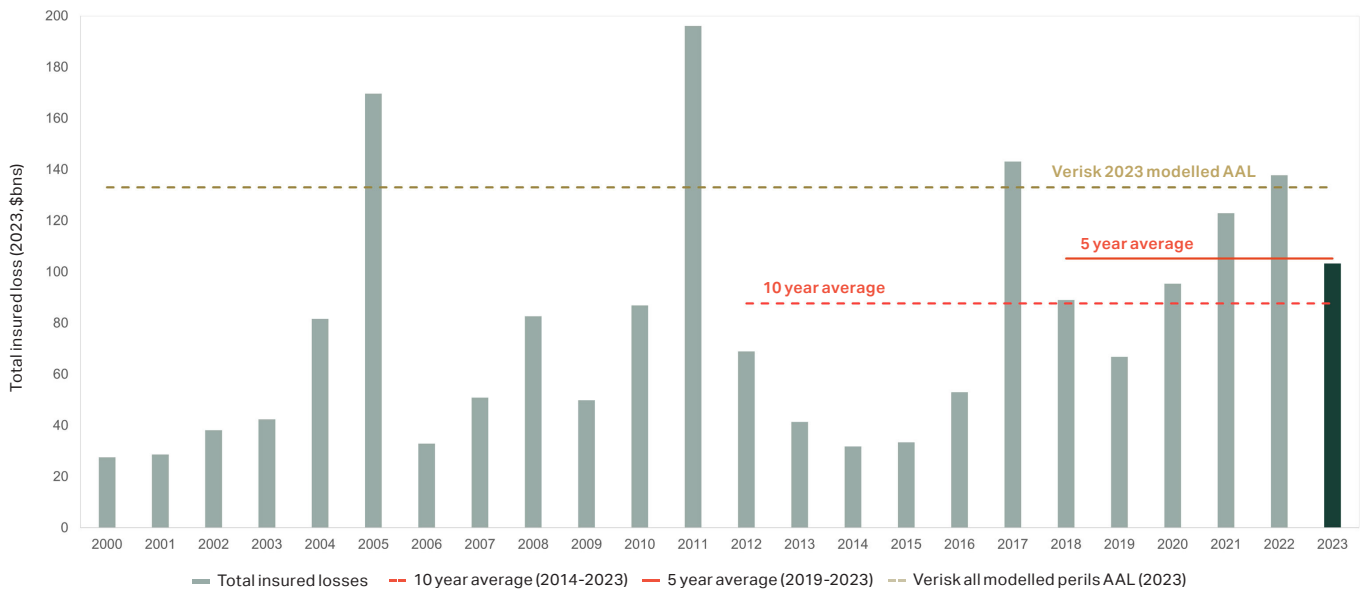
Conclusion

The increasing frequency of significant and seemingly unusual natural catastrophe events prompts reflection on what is considered "normal." Is this the new normal, or has it always been this way? The estimated global losses are very close to the 5 year average. 2023 was unusual though with only one major (>$5B) event, instead of large losses the year was comprised of a high volume of small and mid-sized nat-cat events. Navigating an ever-connected and uncertain world requires a reliable partner, and Howden Tiger emerges as a steadfast ally in these challenging times.

2023 global nat cat losses near the 5 year average
which remains above the 10 year average

Bar chart: Total insured loss (2023, $bns) by year, 2000–2023, with reference lines for 10 year average (2014-2023), 5 year average (2019-2023), and Verisk all modelled perils AAL (2023).

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