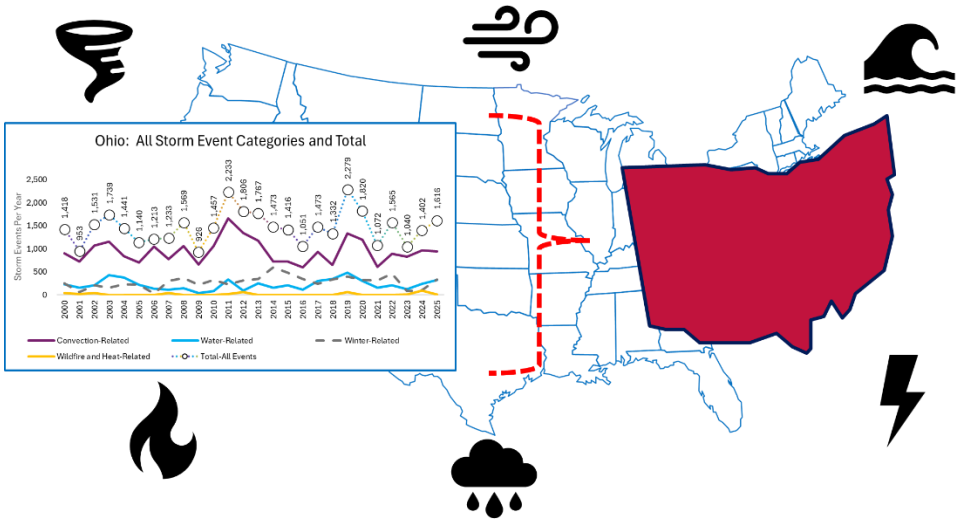
2026 Ohio Storm Events Summary



As a benefit of your membership in the **Ohio Insurance Agents**, you are receiving this *2026 Ohio Storm Events Summary*. This exclusive membership benefit is designed to deliver to you easy access to historical state and national weather data, from a credible and public resource that has been tailored to be specific to your state. The goal is to give you data that can help you see and explain to your insureds and prospects, the importance of insurance products in helping manage Ohio weather risks.

The core component of tracking weather is what is known as a "Storm Event." This *2026 Ohio Storm Events Summary* focuses on 46 of the 56 types of Storm Events, as defined by the National Center for Environmental Information (NCEI) with the National Weather Service (NWS), both part of the National Oceanic and Atmospheric Administration (NOAA). The www.NOAA.gov website states that "NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community." For further understanding, shortened descriptions of the NCEI "Storm Events," are provided in **Appendix #1– NCEI Storm Event Descriptions and Directives Summarized.**

This *Summary* provides a graphic presentation of Storm Events in Ohio for 2025, and over the past 26 years, since the year 2000. Weather data is presented for Ohio, and also the United States for comparison. To facilitate the management and presentation of Ohio's weather, the raw data for all Storm Events is grouped into the similar broad categories of Convection-Related, Water-Related, Winter-Related, and Wildfire and Heat Related Storm Events. Those four categories are then further refined into sub-categories of closely related Storm Event types. And "Severe" Storm Event data (where the Storm Event itself is excessive) is further examined, separately from the broader data, to highlight the history and variability of Severe Storm Events. Global Positioning System (GPS) locating of Ohio Storm Events by latitude and longitude is used to map and illustrate the Storm Events individually.

This *2026 Ohio Storm Events Summary* is not an attempt by Real Insurance Solutions Consulting, LLC (R.I.S.C.) to provide a tool for predicting future weather events or climate change trends. The intent is to give you easy access to valid and reliable Storm Event data. The biggest benefit is knowing that the data exists, and seeing that the data can be charted, mapped, and used to answer questions or devise sales or product strategy.

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Executive Summary: Ohio Storm Events 2000–2025

In 2025 Ohio experienced an above average number of Storm Events at 1,616 total, versus the highest Ohio Storm Event year in 2019 at 2,279, and the lowest Storm Event Year in 2001 at 953. Overall, the United States also experienced an above average number of Storm Events in 2025 at 69,263, compared to the highest U.S. Storm Event year in 2011 at 76,893, and the lowest Storm Event year in 2002 of 49,447.

The Summary Table below, *Summary: Ohio and United States Storm Event Counts*, provides the Storm Event counts for 2025, as well as the average, the highest and lowest years, and counts for each of the Categories of Storm Events used throughout this *Summary*. This includes those Storm Events deemed to be Severe Storm Events. The goal of the Summary Table below is to provide you with a quick assessment of the 2025 Storm Event year, with the full *2026 Ohio Storm Events Summary* providing in-depth detail, and a count of Storm Events in Ohio and the U.S., from 2000 to 2025.

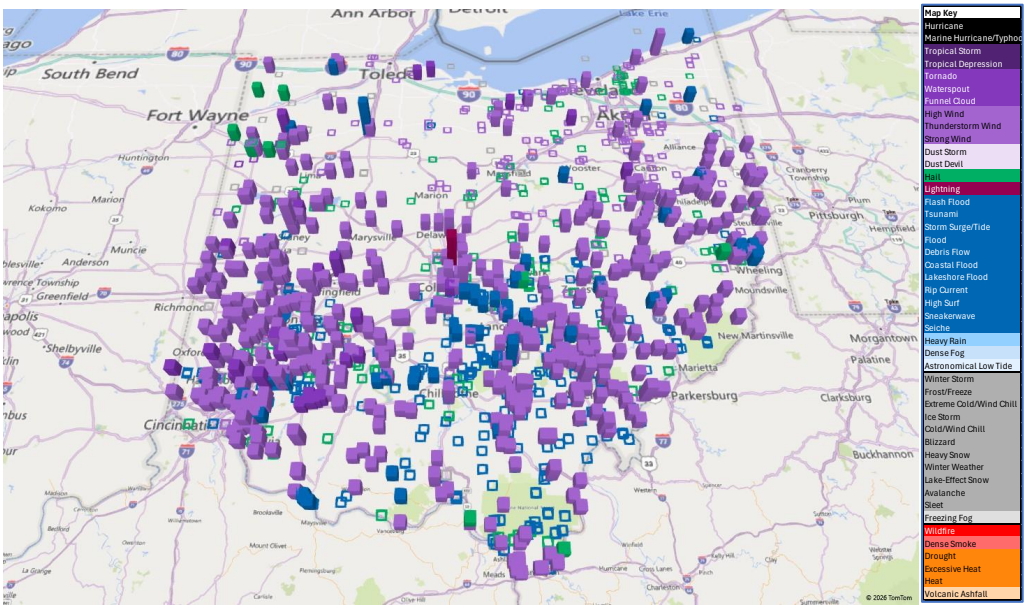
Summary: Ohio and United States Storm Event Counts

Storm Events Category	Above Average, ±Average, or Below Average for Ohio | U.S.	2025 Storm Event Counts for Ohio | U.S.	2000-2025 Average for Ohio | U.S.	Highest Count and Year for Ohio | U.S.	Lowest Year and Count for Ohio | U.S.
All Storm Events	Above | Above	1,616 | 69,263	1,460 | 59,008	2,279 (2019) | 76,893 (2011)	953 (2001) | 49,447 (2002)
Convection-Related	±Average | ±Average	946 | 39,629	945 | 35,445	1,654 (2011) | 61,004 (2024)	611 (2021) | 29,672 (2015)
Water-Related	±Average | ±Average	320 | 8,512	222 | 7,907	485 (2019) | 12,174 (2018)	77 (2010) | 5,133 (2013)
Winter-Related	±Average | ±Average	338 | 13,205	278 | 11,358	594 (2014) | 15,921 (2014)	56 (2001) | 7,869 (2001)
Wildfire and Heat-Related	±Average | ±Average	12 | 7,917	15 | 5,213	96 (2024) | 14,095 (2023)	0 (15 Years) | 1,597 (2003)
Severe Storm Events	Above | Above	34 | 3,929	28 | 2,506	70 (2012) | 3,929 (2025)	6 (2005, 2018, 2021) | 1,834 (2007)

Summary Table | Data Source: NCEI Storm Events Database (± indicates the 2025 Count is ±5% of the average)

To illustrate how Storm Events are mapped in this *Summary* the below Summary Map, *2025 Ohio Storm Event Locations,* shows all the Storm Events occurring in Ohio in 2025. Note that this is just a thumbnail view. The maps in the remainder of this *Summary* use a larger, Landscape presentation view, with a larger Map Key font for enhanced viewing.

2025 Ohio Storm Event Locations



Summary Map | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

Storm Events Data as a Resource for Insurance Agents

Benefits of Access to State-Specific Storm Events Data

Ohio-specific Storm Events data offers valuable insights for insurance clients, demonstrating the occurrence of insurable Storm Events within the state. This data sheds light on the frequency of these events, their historical patterns, and the variability of weather conditions. It serves as a key resource for independent insurance agents, supporting discussions with clients or prospects—particularly when revisiting challenging loss years. Additionally, this data empowers clients and prospects to make informed decisions about risk management by considering the potential impacts of Storm Events.

Insurance coverage for such events often depends on specific circumstances. Using Ohio-specific Storm Event data can help clarify the scope of coverage, educating insureds on what their premiums are intended to cover—and what they may not. For instance, clients weighing the option to self-insure against certain Water-Related Storm Events can benefit from reviewing the recent data, which underscores the advantages of property and casualty (P&C) insurance coverage. This includes not only financial protection, but also the insurer's role in facilitating cash flow and recovery following widespread Storm Events.

Ultimately, the data included in this *2026 Ohio Storm Events Summary* highlights the unpredictable nature of weather events, reinforcing the value of P&C insurance as a critical risk management tool for independent insurance agency customers.

Weather Data Sources of Storm Events

Sources of Storm Event Data

The data sources referenced in this report include the National Centers for Environmental Information (NCEI) and its Storm Events Database, accessible via the National Oceanic and Atmospheric Administration (NOAA), at https://www.ncdc.noaa.gov/stormevents/. NCEI's mandate includes monitoring climate, weather, oceans, coasts, and related geophysics. The NCEI collects, archives, and distributes Storm Event data, which includes data on thunderstorms, tornadoes, hurricanes, floods, winter storms, and more. The NCEI comprehensive database details the location, date, time, duration, intensity, and impacts of each event.

For GPS data mapping, latitude and longitude coordinates provided by the NCEI Storm Events Database were utilized. In cases where this data was unavailable, Real Insurance Solutions Consulting (R.I.S.C.) employed Google Earth systems, using an Application Programming Interface (API) to generate the Storm Event maps featured in this *Summary*. These proprietary maps are attributed to R.I.S.C. using Microsoft Excel.

Note: This resource is cited throughout this *Summary* as the "NCEI Storm Events Database" or "NCEI."

Sources of Weather Data Collection

As previously mentioned, Storm Events data is obtained from the National Center for Environmental Information (NCEI). NCEI data is gathered from various agencies, entities, and sources, including:

- The National Weather Service (NWS)
- County, state, and federal emergency management officials
- Local law enforcement officials

- "Skywarn" spotters
- NWS damage surveys
- Newspaper clipping services
- The insurance industry
- The general public

Storm Events Description and Categorization

Storm Event Description

The above suppliers of Storm Event data follow highly detailed directives provided by NCEI, that set parameters for weather data gathering. To enhance understanding of the parameters guiding weather data collection, abbreviated summaries of each Storm Event type are listed in **Appendix #1–NCEI Storm Event Descriptions and Directives Summarized**. The directives instruct sources as to what qualifies as a particular Storm Event, and how to document it. The instructions are highly detailed so that the data reporting methods remain consistent, and take into account the differences from one Storm Event to another.

Over the years, NCEI has adjusted some of its reporting practices, including the naming conventions of certain Storm Events. For example, the term "Hurricane (Typhoon)" has been replaced with the simpler "Hurricane" in recent records. While a Typhoon refers exclusively to tropical cyclones in the western Pacific, the term Hurricane is used as far west as Hawaii. For the purposes of this *2026 Ohio Storm Events Summary*, the categories "Hurricane (Typhoon)" and "Hurricane" have been consolidated into a single Storm Event. Additionally, Northern Lights, which were once included in NCEI Storm Events, are no longer reported and are thus excluded from this *Summary*.

The NCEI database encompasses data from U.S. Territories (e.g., Puerto Rico and the Virgin Islands) as well as marine environments like coastal areas and navigable waterways. However, this *Summary* focuses exclusively on data from the 50 United States and the District of Columbia, and excludes territories such as Puerto Rico. Similarly, Marine-only events are not included unless they transition into land-based phenomena—for instance, when "Marine Thunderstorm Wind" evolves into "High Wind" or "Thunderstorm Wind."

Data Categorization of Storm Events

In this *Summary*, Storm Events with similar insurance impacts are grouped into four distinct categories ("Categories") for data presentation purposes. These Categories were organized and developed by Real Insurance Solutions Consulting specifically for this *Summary* and are not part of the NCEI's classifications. The Categories of Storm Events used in the *Summary* are:

- Convection-Related
- Water-Related
- Winter-Related
- Wildfire and Heat-Related

To aid in identifying the different types of Storm Events, below is Table 1: *Color-Coded Representation of Storm Events and Categories*, which provides a color-coded representation of over 50 Storm Events as defined by the NCEI. These 50 Storm Events have each been assigned to one of the broader Storm Event Categories from the list just above. For easier visualization, Storm Event Categories are visually represented throughout this *Summary* by the following colors:

- **Purple** for **Convection-Related** Storm Events
  - **Scarlet** for **Lightning** Events (categorized under Convection-Related)
  - **Green** for **Hail** Events (categorized under Convection-Related)
- **Blue** for **Water Related** Storm Events
- **Grey** for **Winter-Related** Storm Events
- **Red to Amber** for **Wildfire and Heat-Related** Storm Events

The color-coding of Storm Events is applied consistently across the tables, figures, and maps presented in this *Summary*. Color shades are designed to reflect the severity of damages, fatalities, and injuries reported, with darker shades representing greater severity. Additionally, distinct hues are used for specific Storm Event types such as Hail, Lightning, Heavy Rain, Freezing Fog, Wildfire, and Volcanic Ashfall, to further differentiate them.

Below, the details of this color-coding are summarized in Table 1: *Color-Coded Representation of Storm Events and Categories*. In some cases, a Storm Event that typically occurs offshore may still be listed as occurring within the United States. When this happens, the Marine Hail Storm Event is consolidated into the same color as Hail.

Color-Coded Representation of Storm Events and Categories

Convection-Related	Water-Related	Winter-Related	Wildfire and Heat-Related
Hurricane	Flash Flood	Winter Storm	Wildfire
Tropical Storm	Tsunami	Frost/Freeze	Dense Smoke
Tropical Depression	Storm Surge/Tide	Extreme Cold/Wind Chill	Drought
Tornado	Flood	Ice Storm	Excessive Heat
Waterspout	Debris Flow	Cold/Wind Chill	Heat
Funnel Cloud	Coastal Flood	Blizzard	Volcanic Ashfall
High Wind	Lakeshore Flood	Heavy Snow	
Thunderstorm Wind	Rip Current	Winter Weather	
Strong Wind	High Surf	Lake-Effect Snow	
Dust Storm	Sneakerwave	Avalanche	
Dust Devil	Seiche	Sleet	
Hail	Heavy Rain	Freezing Fog	
Lightning	Dense Fog		
	Astronomical Low Tide		

Table 1 | Categories and Color-Coding: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Graphing Ohio Storm Event Data in Four Categories

The 26 years of Storm Event data for Ohio, reported on in this *Summary*, are graphed below in Figure 1A: *Ohio: All Storm Event Categories and Total*. The data is shown for each of the four Storm Event Categories created by Real Insurance Solutions Consulting. Graphing follows the Storm Event Category color-coding previously shown in Table 1.

For comparison, Figure 1B: *United States: All Storm Event Categories and Total,* provides the same 26 years of United States Storm Event data for all U.S. states combined.

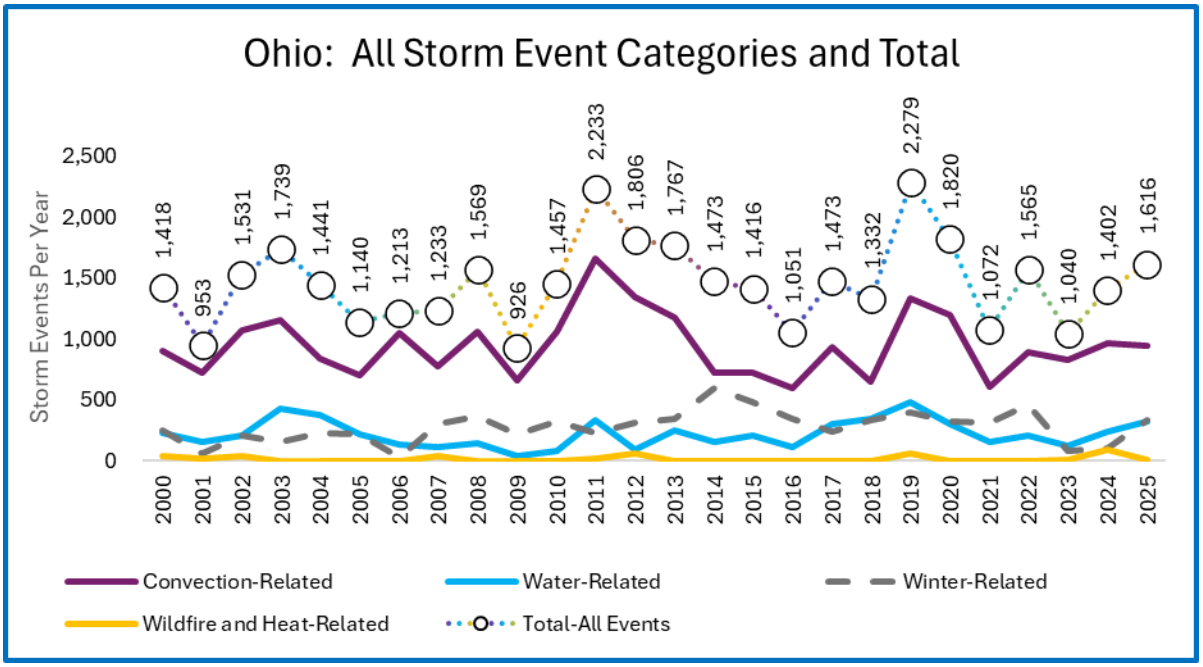


Figure 1A | Source: NCEI Storm Events Database

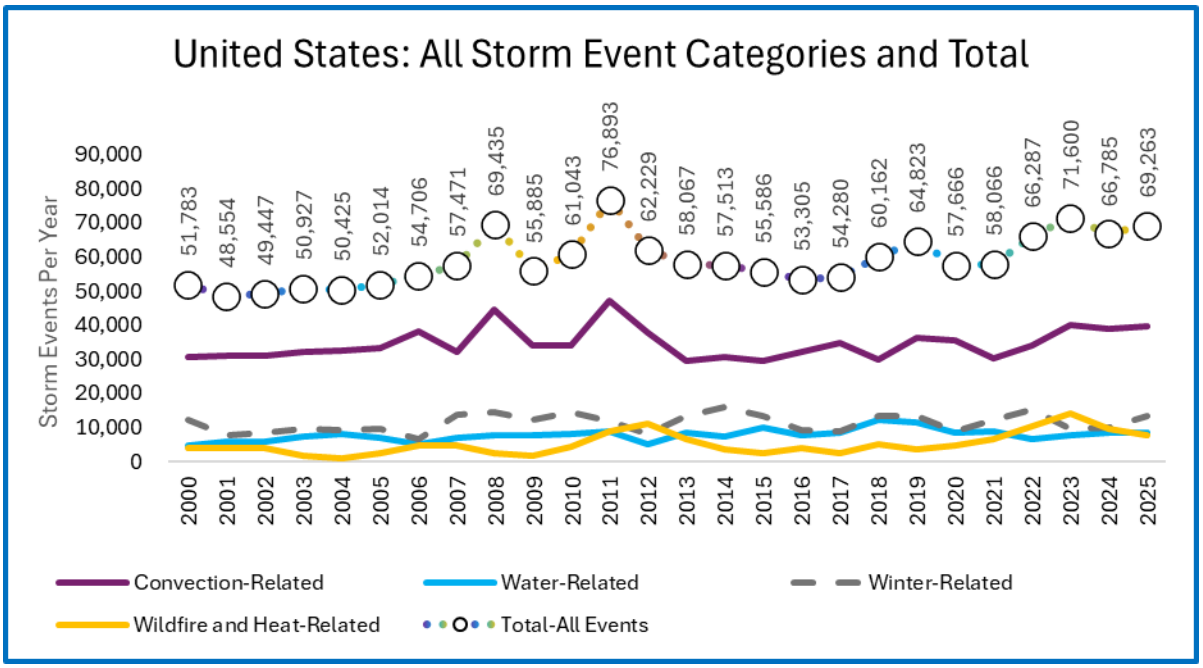


Figure 1B | Source: NCEI Storm Events Database

Convection-Related Storm Events

Convection-Related Storm Events Defined

Convection-related Storm Events are those that result from vertical forces in the atmosphere that transport heat and moisture in upward momentum, which causes storm events at the ground level. Convection can be observed as the sun heats the earth's surface, air rises, moisture in the air condenses, and clouds form. Convection can advance to the formation of thunderstorms, tornados, tropical storms, hurricanes, squall lines and even derechos.

Convection-related storm events generally produce property losses that are covered under standard property and casualty (P&C) insurance policies, including Homeowners Multi-Peril, Commercial Multi-Peril, and Personal or Commercial Automobile policies when physical damage coverage applies. These events may also trigger coverage under less commonly used P&C lines such as Aircraft, Crop, or Inland Marine insurance.

Because convection-related storm losses can involve multiple coverage forms and complex cause-of-loss considerations, effective protection depends on informed discussions between independent insurance agents and their clients. Access to detailed Storm Event data—particularly data specific to Convection-Related Storm Events—can be a great motivation to have those conversations by grounding them in objective, state-specific historical experience.

Convection-Related Sub-Categories

Real Insurance Solutions Consulting has placed the Storm Event types found within the **Purple** Convection-Related Category in Table 1, into further Sub-Categories, to provide a more detailed level of Storm Event data presentation. Those Convection-Related Sub-Categories are: Tornado, Straight-Line (wind), Hail, Hurricane and Tropical, and Other (**Δ**), and are shown below in Table 2: *Convection-Related Sub-Categories and their Component Storm Events*. Table 2 uses the color **Purple**, with either a solid line, long-dashed line, short-dashed line, or **Purple** shading to delineate each Sub-Category of Convection-Related Storm Events, with the exception of a **Green** short-dashed line used for Hail. Also note, the last Sub-Category "Other" is designated by a **Purple** triangle (**Δ**) symbol only.

Convection-Related Sub-Categories and their Component Storm Events

Tornado	Straight-Line	Hail	Hurricanes and Tropical	Other (Δ)
Tornado	High Wind	Hail	Hurricane	Dense Fog
Funnel Cloud	Lightning		Hurricane (Typhoon)	Dust Devil
Waterspout	Strong Wind		Tropical Depression	Dust Storm
	Thunderstorm Wind		Tropical Storm	

Table 2 | Sub-Categories and Colors: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Convection-Related Storm Event Data

Below, Figure 2A: *Ohio: Convection-Related Storm Events,* presents data on the Sub-Categories of Convection-Related Storm Events using the colors, shading, and line treatments previously shown in Table 2 above. Figure 2B: *United States: Convection-Related Storm Events,* provides comparable data for the entire United States. In both Figures a "Total" is provided, which represents the total number of Convection-Related Storm Events for each of the 26 years included in this *2026 Ohio Storm Events Summary*.

Note: Hurricanes and Tropical are plotted on its own scale on the right-hand axis to improve visibility of that data, when present, relative to other Sub-Categories. In states where Hurricanes are absent, no purple-colored columns will appear; however, the corresponding axis and scale label do remain visible.

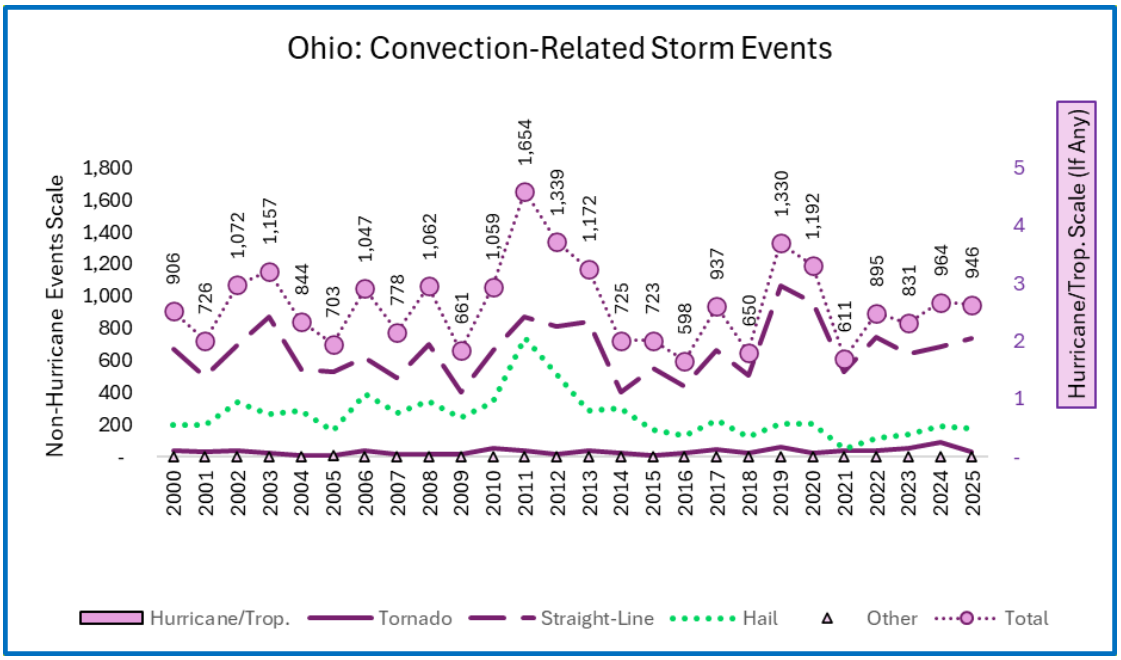


Figure 2A | *Data Source: NCEI Storm Events Database*

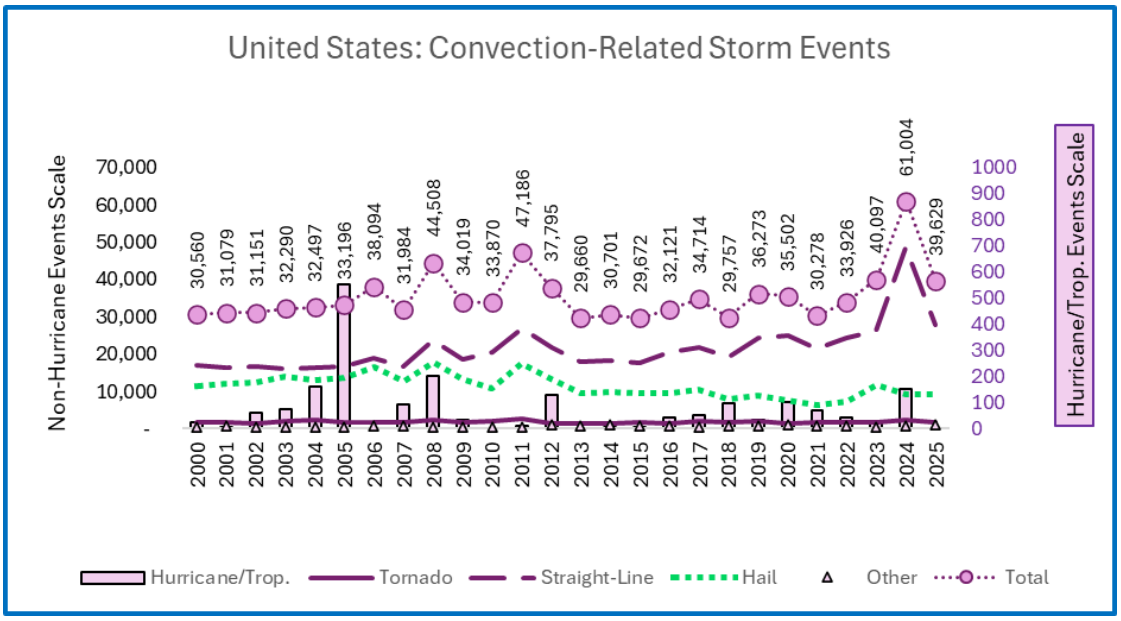


Figure 2B | Data Source: NCEI Storm Events Database

Water-Related Storm Events

Water-Related Storm Events Defined

Water-Related Storm Events are those in which precipitation, such as rain or other forms of condensation, along with rising or moving water, is the primary element of the Storm Event. This category includes flash flooding, even though the root cause of flash flooding often involves Convection-Related circumstances. This is because property and casualty (P&C) insurance treats flash flooding more like other types of Water-Related Storm Events, than it does tornadoes and other Convection-Related Storm Events.

Generally, potential property losses which may result from Water-Related Storm Events require situation-specific risk management discussions between independent agents and their insureds, as the property itself, its location, and its mobility (or lack of mobility) makes a significant difference in insurance coverage needed.

For example, virtually every Private Passenger Auto policy, Commercial Auto policy, and Inland Marine policy provides physical damage coverage for loss due to water damage (that is, if the auto policies are not "liability-only"). That is not the case with residential and commercial property, where a separate policy is often required for rising water from a Storm Event. Private Crop insurance (historically often referred to as "Rain and Hail" crop insurance) may or may not cover water damage, while Multi-Peril Crop insurance (reinsured by the U.S. government) nearly always includes such Water-Related perils.

The point being that adequately insuring situations involving Water-Related loss potential will benefit from discussion between independent insurance agents and clients. Access to Storm Event data, and more specifically Water-Related Storm Event data, can enhance those discussions.

Water-Related Sub-Categories

Real Insurance Solutions Consulting has placed the Storm Event types found in the Water-Related Category in Table 1 into further Sub-Categories, to provide a more detailed level of Storm Event data presentation. The Water-Related Sub-Categories are: Rising Water, Rain, and Other Water. These more specific Sub-Categories and their component Storm Event types are shown below in Table 3: *Water-Related Sub-Categories and their Component Storm Events*. Table 3 uses the color **Blue**, with either a solid line, long-dashed line, or short-dashed line to delineate each Sub-Category of Water-Related Storm Events.

Water-Related Sub-Categories and their Component Storm Events

Rising Water	Rain	Other Water
Coastal Flood	Heavy Rain	Astronomical Low Tide
Debris Flow		Rip Current
Flash Flood		Seiche
Flood		Sneakerwave
High Surf		
Lakeshore Flood		
Storm Surge/Tide		
Tsunami		

Table 3 | Sub-Categories and Colors: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Water-Related Storm Event Data

Figure 3A: *Ohio: Water-Related Storm Events*, presents data on the Sub-Categories of Water-Related Storm Events using the color, shading and line treatments previously shown in Table 3 above. And Figure 3B: *United States: Water-Related Storm Events*, provides the comparable United States data for Water-Related Storm Events. In both Figures a "Total" is provided, which represents the total number of Water-Related Storm Events for each of the 26 years included in this *2026 Ohio Storm Events Summary*.

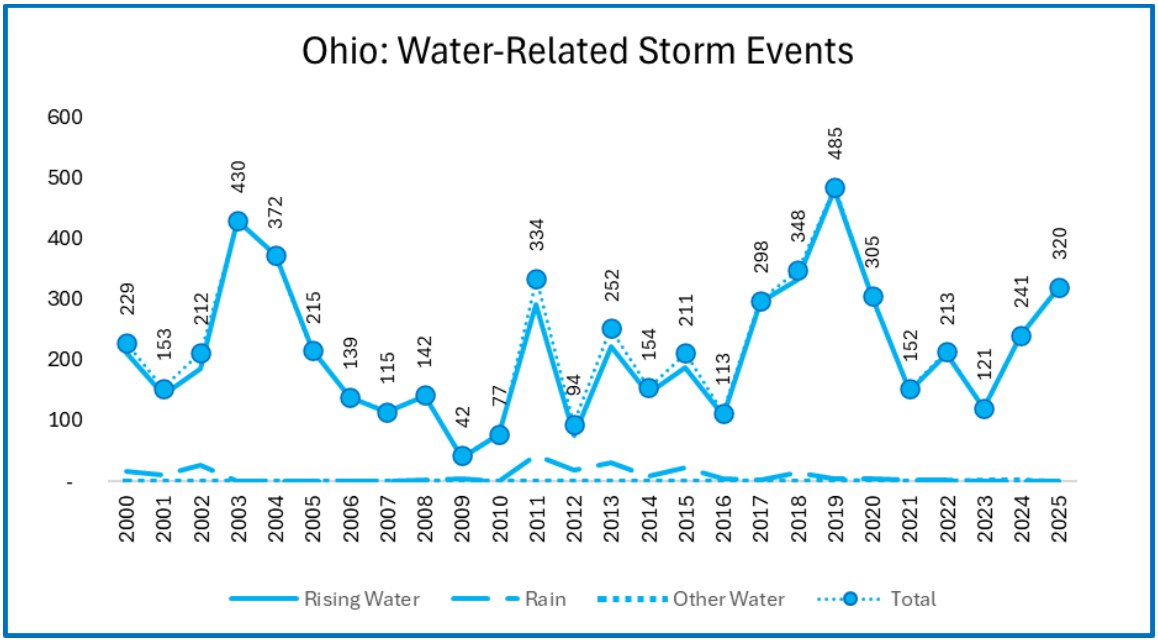


Figure 3A | Data Source: NCEI Storm Events Database

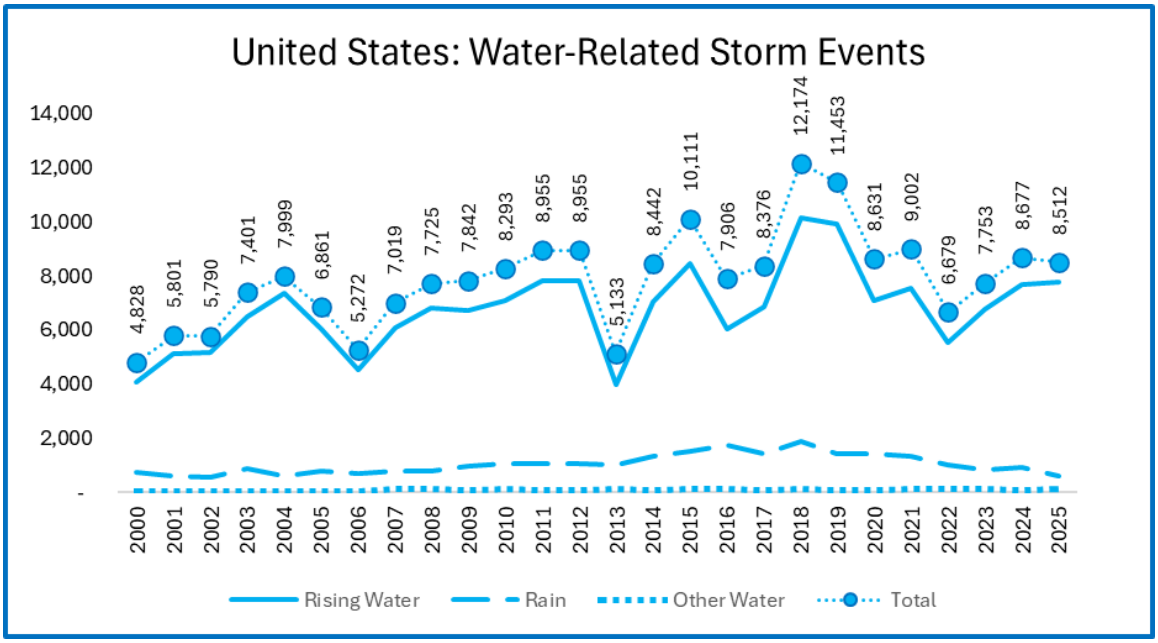


Figure 3B | Data Source: NCEI Storm Events Database

Winter-Related Storm Events

Winter-Related Storm Events Defined

Winter-Related Storm Events are those caused predominantly by cold weather occurring from the fall season through spring. These events include freezing due to low temperatures, as well as precipitation-related phenomena such as snow, sleet, freezing rain, and the resulting accumulations. While nearly all states experience some likelihood of Winter-Related Storm Events, the probability varies significantly, with certain states facing far fewer occurrences. According to the NCEI directives, only significant events—those deemed abnormal or unusual in size, scope or severity—are typically reported as Winter-Related Storm Events.

Property losses stemming from Winter-Related Storm Events are often covered under property and casualty (P&C) insurance, but there are exceptions. For example, when the damage is cumulative or leads to slower deterioration or even structural collapse, coverage is less commonly provided. It can be important to discuss these scenarios with insureds to ensure they understand both the advantages and limitations of their P&C coverage.

Also, specific policy forms, along with factors such as building occupancy, can significantly influence coverage for Winter-Related Storm Events. Access to state-specific Winter-Related Storm Event data can support meaningful conversations with both prospects and insureds, helping them make informed decisions.

Winter-Related Sub-Categories

Real Insurance Solutions Consulting has placed the Storm Event types in the Winter-Related category into further Sub-Categories, which are: Snow or Sleet, Cold Temperature, and Avalanche. These Sub-Categories and their component Storm Event types are shown below in Table 4: *Winter-Related Sub-Categories and their Component Storm Events*. Table 4 uses the color **Grey**, with either a solid line, long-dashed line, or **Grey** shading to delineate each Sub-Category of Winter-Related Storm Events.

Note: Avalanche is plotted on its own scale on the right-hand axis to improve visibility of that data, when present, relative to other Sub-Categories. In states where Avalanches are absent, no **Grey**-colored columns will appear; however, the corresponding axis and scale label do remain visible.

Winter-Related Sub-Categories and their Component Storm Events

Snow or Sleet
Blizzard
Freezing Fog
Heavy Snow
Ice Storm
Lake-Effect Snow
Sleet
Winter Storm

Cold Temperature
Cold/Wind Chill
Extreme Cold/Wind Chill
Frost/Freeze
Winter Weather

Avalanche
Avalanche

Table 4 | Sub-Categories and Colors: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Winter-Related Storm Event Data

Figure 4A: *Ohio: Winter-Related Storm Events*, presents data on the different Sub-Categories of Winter-Related Storm Events, using the colors, shading and line treatments as previously shown in Table 4 above. Figure 4B: *United States: Winter-Related Storm Events*, provides the comparable United States data. In both Figures a "Total" is provided, which represents the total number of Winter-Related Storm Events for each of the 26 years included in this *2026 Ohio Storm Events Summary*.

Note: Avalanche has its own scale on the right-hand axis, for better visibility of Avalanche Storm Events. If there are no Avalanches in a particular state, there will be no **Grey**-colored columns, while the axis scale and label remain visible.

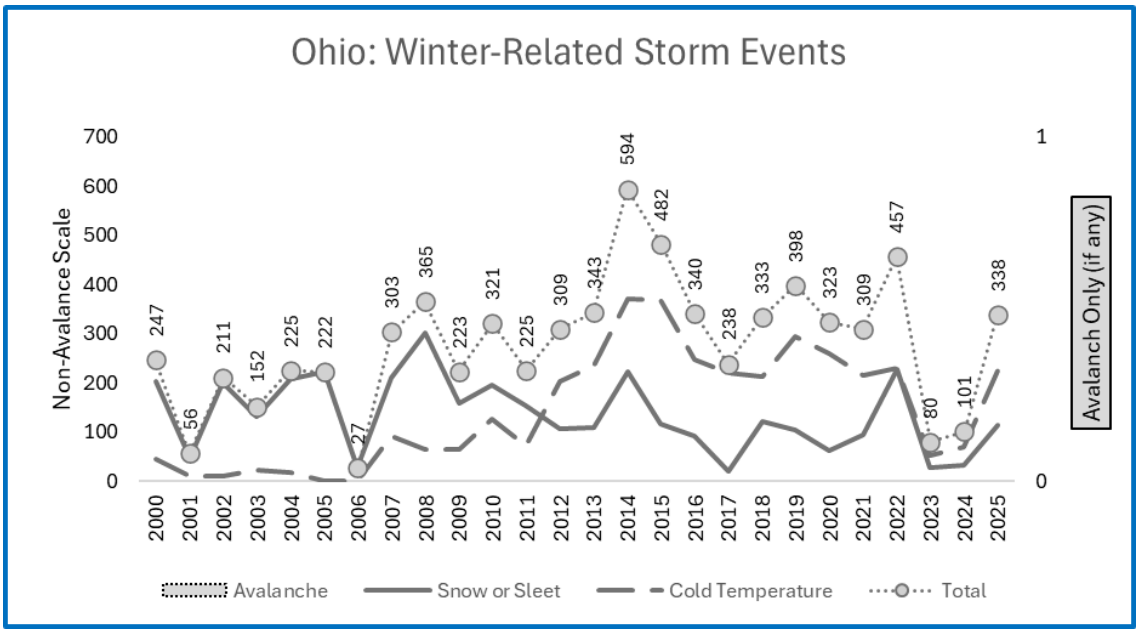


Figure 4A | Data Source: NCEI Storm Events Database

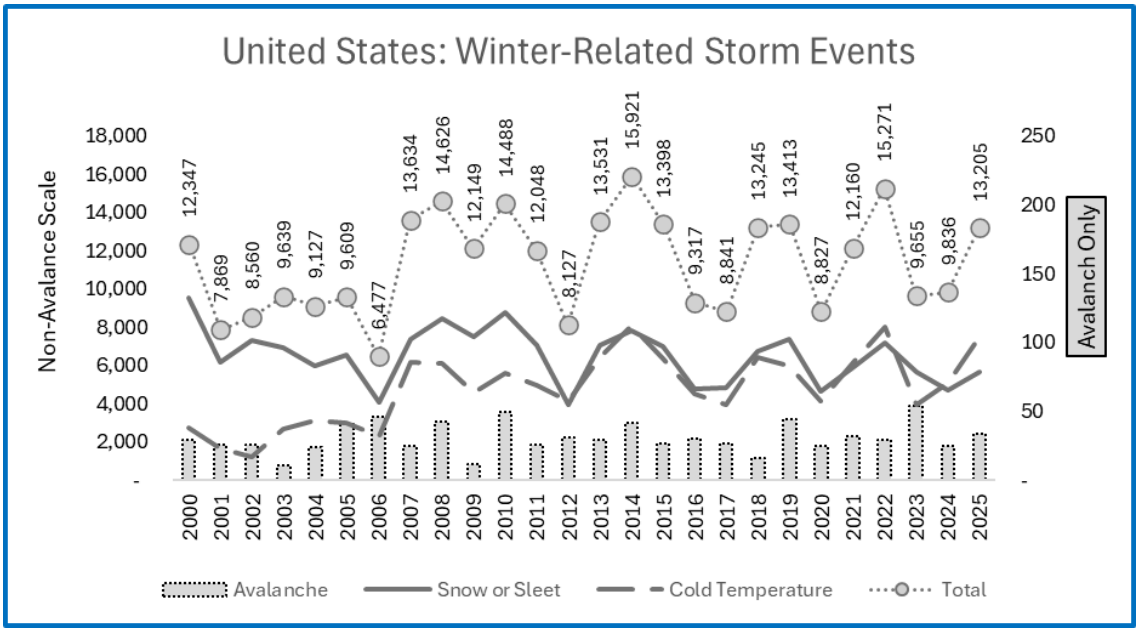


Figure 4B | Data Source: NCEI Storm Events Database

Wildfire and Heat-Related Storm Events

Wildfire and Heat-Related Storm Events Defined

Wildfire and Heat-Related Storm Events encompass those caused by seasonal and unseasonably high or extreme temperatures over extended periods of time, combined with prolonged lack of precipitation resulting in drought. This category of Storm Events also includes Wildfire. Notably, wildfires occurring historically during the summer months are now happening year-round.

Dense smoke from wildfires, as well as volcanic ashfall, are classified as Storm Events by the NCEI and are included under the Wildfire and Heat-Related Storm Events category in this *Summary*. As with Winter-Related Storm Events, NCEI directives instruct reporting sources to include only significant events—those considered abnormal or unusual in size, scope or severity.

Insurance treatment of property losses resulting from Wildfire and Heat-Related Storm Events varies significantly depending on the specific event and the line of business insured. Fire-related losses are generally covered under most physical damage insurance policies, though exceptions exist, such as some crop insurance policies. Also, some areas of the country now see fire coverage excluded, with coverage purchased specifically for fire damage.

This data on Wildfire and Heat-Related Storm Events can serve as a valuable tool for discussions with insureds and prospects, helping them understand the implications of these events and make informed P&C insurance coverage decisions.

Wildfire and Heat-Related Sub-Categories

Real Insurance Solutions Consulting has placed the Storm Event types in the Wildfire and Heat-Related Category into Sub-Categories, which are: Wildfire, Drought, Heat, and Volcanic. These Sub-Categories and their component Storm Event types are shown below in Table 5: *Wildfire and Heat-Related Sub-Categories and their Component Storm Events*. Table 5 uses **Red** shading with a solid line for Wildfire. The color **Amber** is used for Drought, Heat and Volcanic, with either a long-dashed line, a solid line, or short-dashed line to delineate non-Wildfire Storm Events in this Category.

Wildfire and Heat-Related Sub-Categories and their Component Storm Events

Wildfire	Drought	Heat	Volcanic
Wildfire	Drought	Excessive Heat	Volcanic Ashfall
Dense Smoke		Heat	

Table 5 | Sub-Categories and Colors: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Wildfire and Heat-Related Storm Event Data

Figure 5A: *Ohio: Wildfire and Heat-Related Storm Events,* presents data on the Sub-Categories of Wildfire and Heat-Related Storm Events, using the colors, shading and line treatments previously shown in Table 5 above. Figure 5B: *United States: Wildfire and Heat-Related Storm Events,* provides comparable data for the entire United States. In both Figures a "Total" shows the total number of Wildfire and Heat-Related Storm Events, for each of the 26 years included in this *2026 Ohio Storm Events Summary*.

Note: Wildfire has its own scale on the right-hand axis, which allows for better visibility of Wildfire Events. If there were no Wildfires in a state, there are no columns visible, while the axis scale and label remain visible.

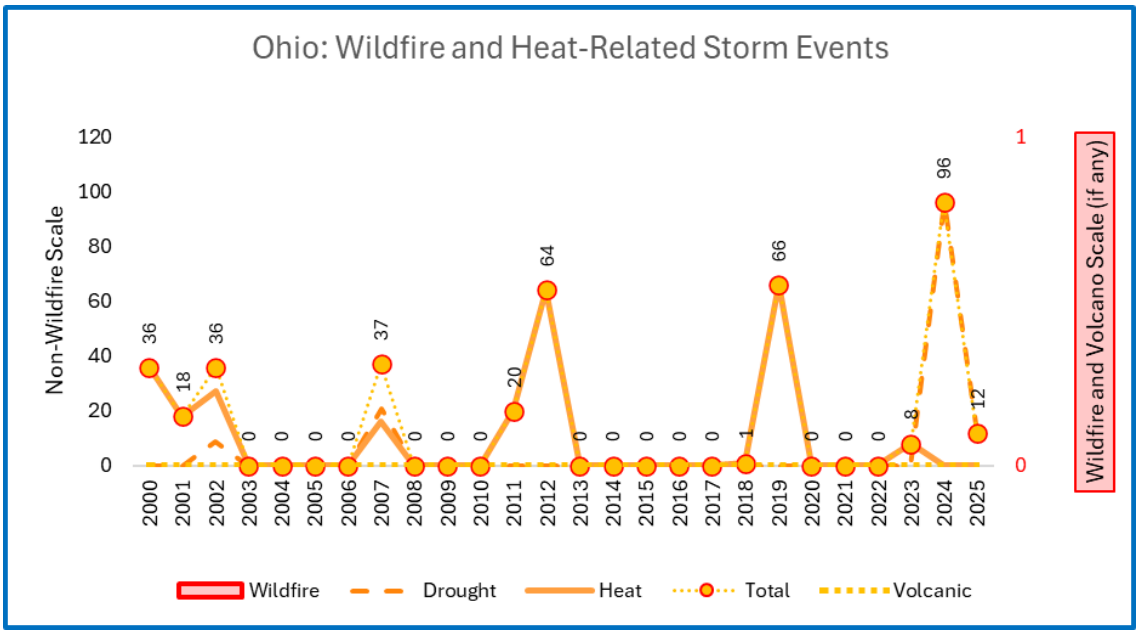


Figure 5A | Data Source: NCEI Storm Events Database

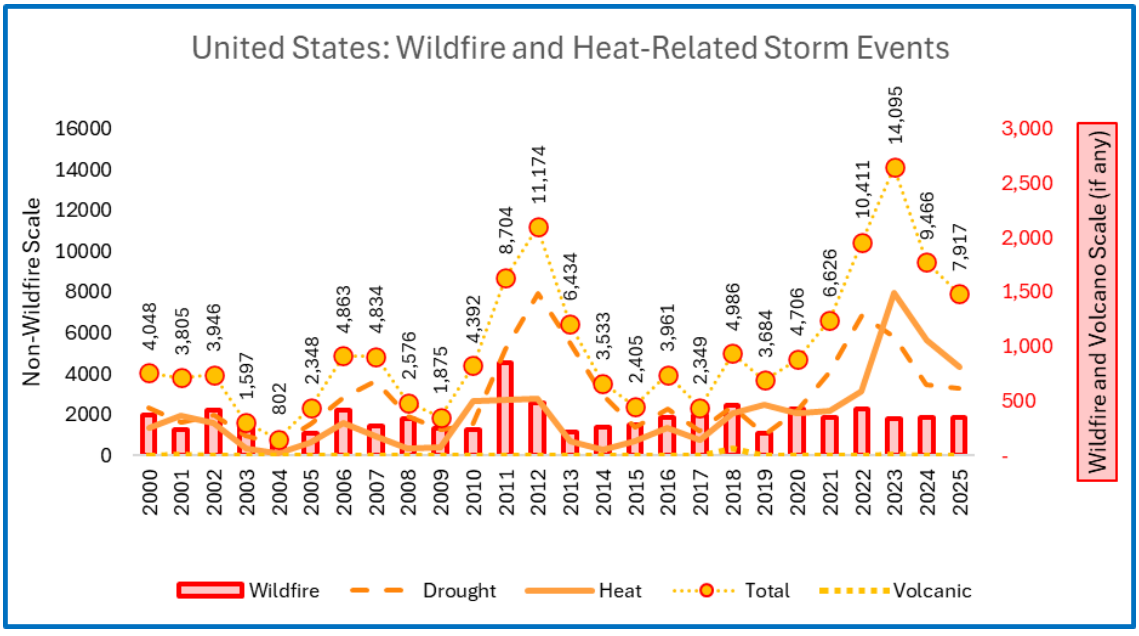


Figure 5B | Data Source: NCEI Storm Events Database

Severe Storm Events

Severe Storm Events Defined

This section brings back all Storm Events, then draws out the various Storm Events that are deemed to be "Severe" Storm Events. The parameters of what is considered to be a "Severe Storm Event," for the purpose of this *Summary*, have been determined by Real Insurance Solutions Consulting, and not NCEI.

The below Table 6: *Severe Storm Event Groups*, shows Storm Events separated into six different Groups, which are: High Winds, Tornado, Hail, Hurricane, Wildfire, and Other. The Storm Event type belonging to each Group, and the parameters by which that Storm Event type is considered to be "Severe" are listed. Colors used to represent each group were selected to be consistent with previous use of color-coding in this *Summary*, with the exception of the "Other" category, which is **Brown**.

For clarification, the "**Other**" Severe Storm Event Group is defined as "Any other Storm Event of any type that does not fit under, or meet the parameters of the previous five Severe Storm Event Groups, but where there was one or more deaths, or 10 or more injuries." An example of a Severe Storm Event that falls into the "**Other**" Group includes: an EF1 or EF2 Tornado where there is a death, or 10 or more injuries. Or, a Storm Event not listed in the previous five Severe Storm Event Groups, such as Rip Current or Avalanche, where there is a death, or 10 or more injuries.

Severe Storm Events Groups

High Winds	Tornado	Hail	Hurricane	Wildfire	Other
High Wind, Strong Wind, and Thunderstorm Wind of 65 knots (75 mph) or more	Funnel Cloud, Tornado, Waterspout EF3+, >5 miles Long or >500 feet wide	Hail of 2 inches or more	Hurricane of any Category (1,2, 3, 4 or 5), but no Tropical Storms or Tropical Depressions	Any damages reported	Any other Storm Events of any type, that do not meet the parameters of the previous 5 Groups, and where one (1) or more deaths, or 10 or more injuries occur

Table 6 | Groups and Colors: Real Insurance Solutions Consulting. Storm Event Names: NCEI.

Severe Storm Event Data

Figure 6A: *Ohio: Severe Storm Events*, presents Ohio weather data limited to what is deemed a "Severe" Storm Event by Real Insurance Solutions Consulting (not NCEI), the objective being that it highlights the data most often associated with significant P&C insurance losses. Figure 6B: *United States: Severe Storm Events*, provides the comparable Severe Storm Event data for the United States.

Note: In Figure 6A, where a state had no Hurricanes, no Hurricane columns will be shown, while the Hurricane axis and scale label remain visable. In Figure 6B, the Hurricane Scale for the U.S. data is on the right-hand axis, for better visibility of any Hurricane data.

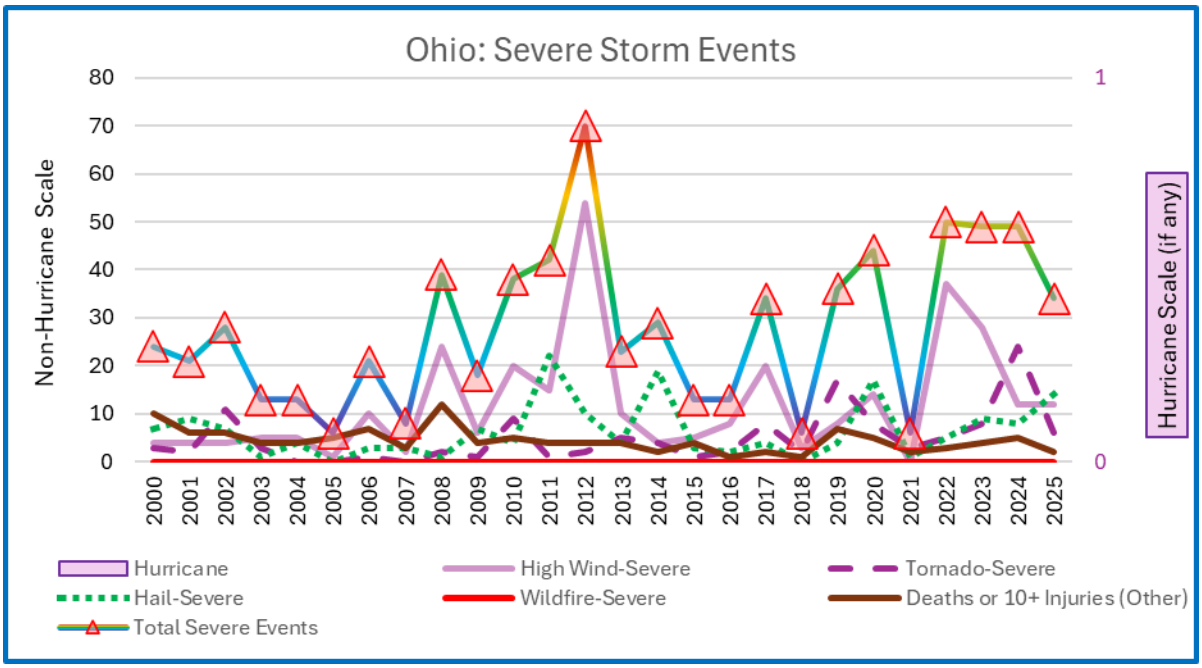


Figure 6A | Source: "Severe" Event determination by Real Insurance Solutions Consulting. Data: NCEI

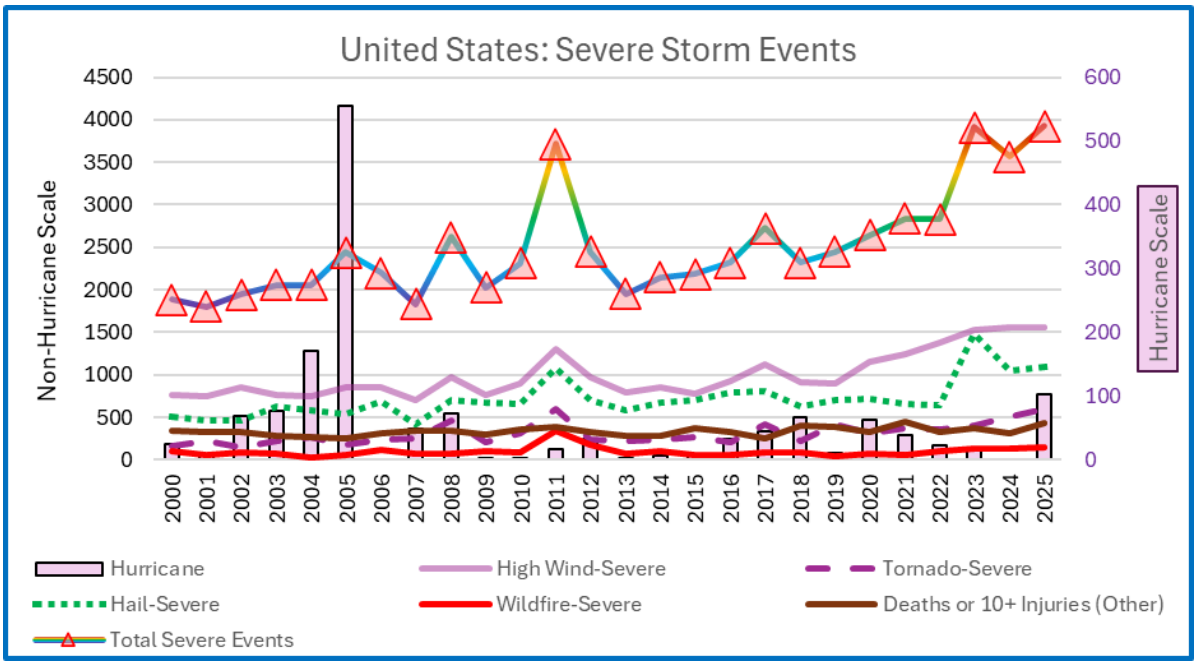


Figure 6B | Source: "Severe" Event determination by Real Insurance Solutions Consulting. Data: NCEI

Mapping Ohio Storm Events

The purpose of the following section of the *2026 Ohio Storm Events Summary* is to provide a visual view of the location of Storm Events in Ohio in 2025, and the extent of Losses in Dollars associated with those Storm Events, as reported by NCEI. Conveying these 2 components of this *Summary's* Storm Events Mapping is done through the GPS mapping of actual Storm Events, and then a calculation of Dollar Amount of Loss for Storm Events to be represented on this *Summary's* maps.

NCEI Data and GPS Mapping of Storm Events

The NCEI Storm Event Database provides GPS latitude and longitude for most Storm Events. For some events, such as tornadoes, both beginning and ending GPS locations are listed, but only the starting point is used by Real Insurance Solutions Consulting (R.I.S.C.) for mapping purposes in this *Summary*.

On the other hand, certain Storm Events, like wildfires or droughts, may not have specific GPS locations in the database due to their widespread nature, often affecting large geographic areas such as national forests or wilderness zones. For these areas, R.I.S.C. used a Google Earth plugin to provide a GPS location, generally representing the central point of the affected area. This method is less precise compared to the exact GPS coordinates recorded by NCEI for events like lightning strikes in urban settings.

Map Symbols Showing Storm Events

On the maps in the following section each Storm Event location is shown using a colored symbol, specifically, a colored symbol that is either a hollow square (), or a colored rectangular-shaped column of varying height (). The height (or no height) of the colored column corresponds to the approximate Dollars in Losses for that particular Storm Event. In this way, for Ohio in 2025, both a visual view of the GPS location of Storm Events, and the estimate of Losses in Dollars associated with those Storm Events in 2025 are shown.

Color-Coding of Storm Event Categories

The maps on the following pages use the same color-coding system previously used in this *Summary*, for the four Categories of Storm Events. That color-coding is duplicated again here:

- **Purple** for **Convection-Related** Storm Events
  - **Scarlet** for **Lightning** Events (categorized under Convection-Related)
  - **Green** for **Hail** Events (categorized under Convection-Related)
- **Blue** for **Water Related** Storm Events
- **Grey** for **Winter-Related** Storm Events
- **Red to Amber** for **Wildfire and Heat-Related** Storm Events

Calculation of Dollar Amount of Loss for Storm Events

After mapping GPS location of Storm Events in a state, the next component of this *Summary* is to calculate a Mapping Value for the Dollar Amount of Loss for Storm Events, to be used in representing Losses on this *Summary's* maps. For each reported Storm Event the NCEI Storm Event Database provides an estimate of dollar damage to property and crops, as well as injuries and deaths. For this *Summary*, to arrive at a Dollar Amount of Loss for each Storm Event, R.I.S.C. has taken the reported NCEI direct property loss dollar amount, and then for each Storm Event, combined that with the 2022 National Safety Council dollar-multiple of $40,000 per worker injury, and $1,390,000 per fatality. For example, a Tornado with $10,000,000 in reported property damages, with two deaths (2 x $1,390,000 =

$2,780,000) and 10 injuries (10 x $40,000 = $400,000). would be mapped with a total Dollar Amount of Loss of $10,000,000 + $2,780,000 + $400,000 = $13,180,000.

Map Representation of Storm Event Losses using Mapping Values

In this *Summary* Mapping Values are used to normalize losses, ensuring that mid-sized events are not overshadowed by extreme events. For example, the 2023 Maui wildfire, listed at over $5 billion in damages, could visually dominate a map if raw loss amounts were used. By employing Mapping Values, relative differences among events are more discernible.

The below Table 7: *Storm Event Mapping Value Details*, shows the parameters for how this *Summary* uses the height of the colored column symbol representing each Storm Event on a map to convey the Dollar Amount of Loss for that Storm Event.

Mapping Values are defined on a scale of 10 items. Numerically, zero (0) to nine (9) is used so no losses are readily visible with colored hollow-Square symbol (no height). A Mapping Value of 0 represents a Storm Event with no reported property damage, no deaths, and no injuries, meaning it is a Storm Event with Minimal Impact.

With each increase in Mapping Value towards the maximum Mapping Value of 9, which is a Storm Event of Catastrophic Loss, the height of the colored column symbol increases. Mapping Value 9 will have the tallest column shown on a map. This increase in colored column height with an increase in Mapping Value is depicted below in Table 8: *Column Representation of Increasing Mapping Value.*

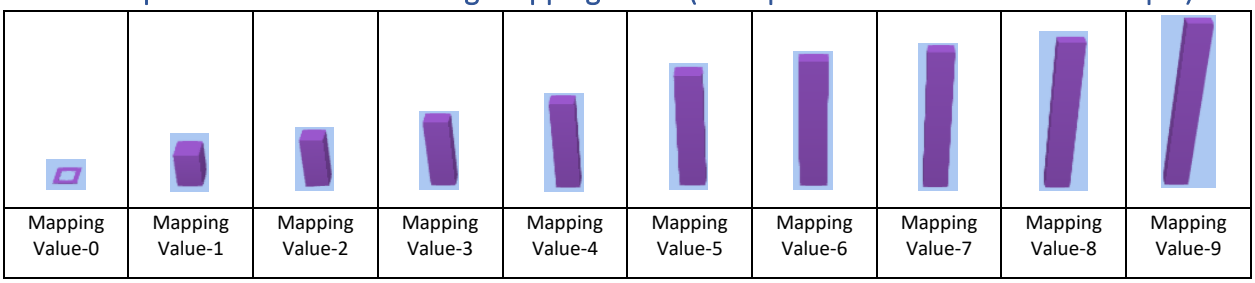
Note: The height of each column is relative to other columns on the same map. For Maps focusing on Ohio, column heights reflect the range of Storm Event mapping values within Ohio. For nationwide maps, column heights are adjusted to include events across the entire United States, including Alaska and Hawaii. Also, Microsoft Excel controls the relative scaling of columns on a given map, resulting in an automated scaling system that can create the appearance of exaggerated column heights when the map's highest Mapping Value is relatively low, better highlighting value differences.

Storm Event Mapping Value Details

Storm Event Mapping Value	Maximum Dollar Amount of Loss
Mapping Value-0 (Minimal Impact)	No Reported Damages, Death or Injuries
Mapping Value-1	Between: $1 to 100,000
Mapping Value-2	Between: $100,001 to 1,000,000
Mapping Value-3	Between: $1,000,001 to $10,000,000
Mapping Value-4	Between: $10,000,001 to $25,000,000
Mapping Value-5	Between: $25,000,001 to $100,000,000
Mapping Value-6	Between: $100,000,001 to $250,000,000
Mapping Value-7	Between: $250,000,001 to $500,000,000
Mapping Value-8	Between: $500,000,000 to $1,000,000,000
Mapping Value-9 (Catastrophic Loss)	Over $1 Billion

Table 7 | Categories: Real Insurance Solutions Consulting

Column Representation of Increasing Mapping Value (Example is Convection Related-Purple)



Mapping Value-0	Mapping Value-1	Mapping Value-2	Mapping Value-3	Mapping Value-4	Mapping Value-5	Mapping Value-6	Mapping Value-7	Mapping Value-8	Mapping Value-9

Table 8 | Categories: Real Insurance Solutions Consulting. Note: Columns in this Table 8 not to map scale.

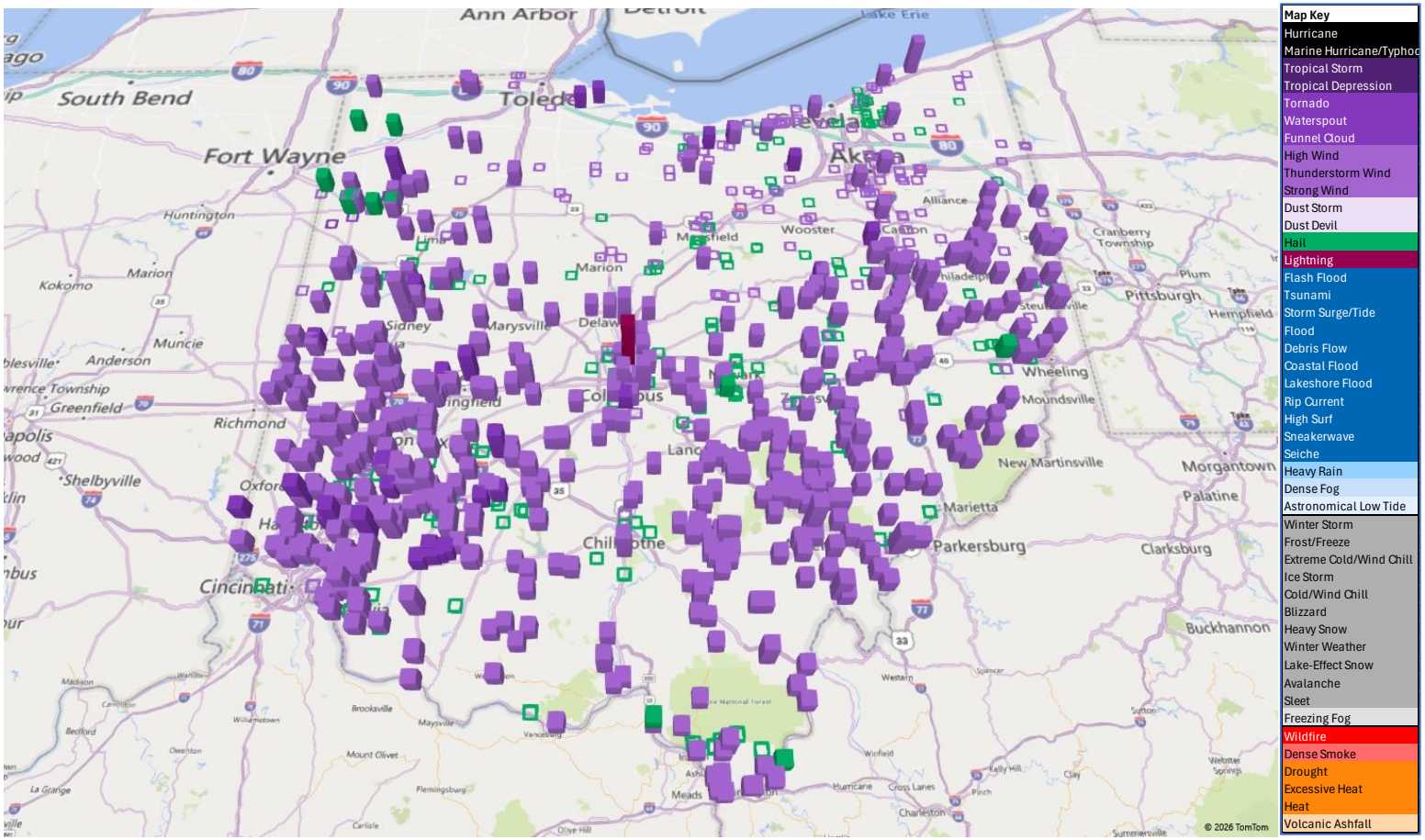
Storm Event Data Availability

The goal of Real Insurance Solutions Consulting in GPS-focused mapping is not to provide a perfect GPS location for each Storm, but rather to provide an overall perspective on the occurrence of Storm Events in your state. For readers interested in delving further into an individual Storm Event and its location, Storm Event details are available for download by year at https://www.ncdc.noaa.gov/stormevents/ (see the menu item “Data Access” and “Bulk Data Download-CSV”).

For Storm Events not covered in this *Summary*, the NCEI website states that it updates its Storm Event Database approximately 100 days after the close of any calendar month. Data for years including 2025 are available going back to the year 1950.

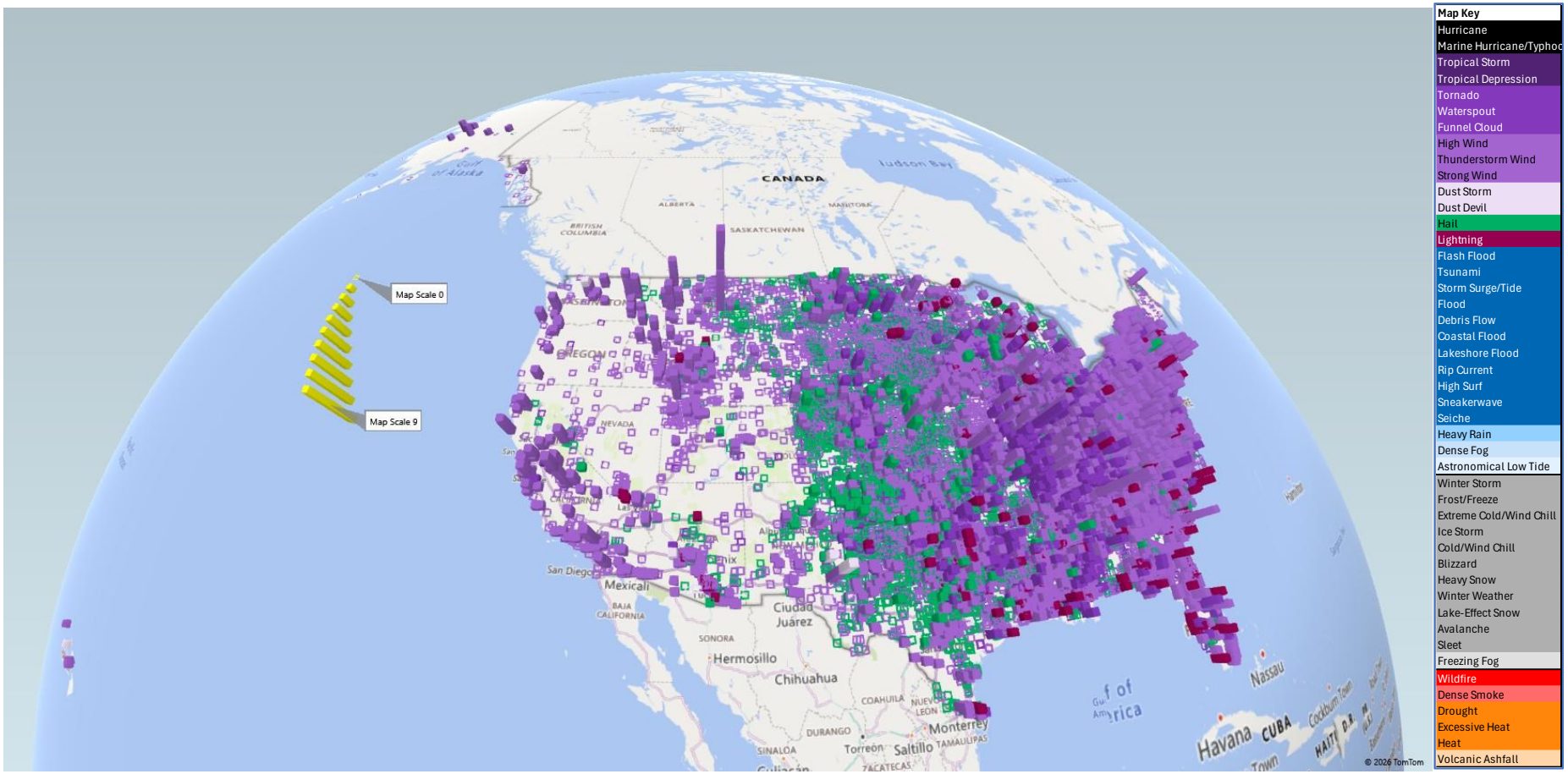
2025 Convection-Related Storm Event Mapping

2025 Ohio View: Convection-Related Storm Events



Map 1A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

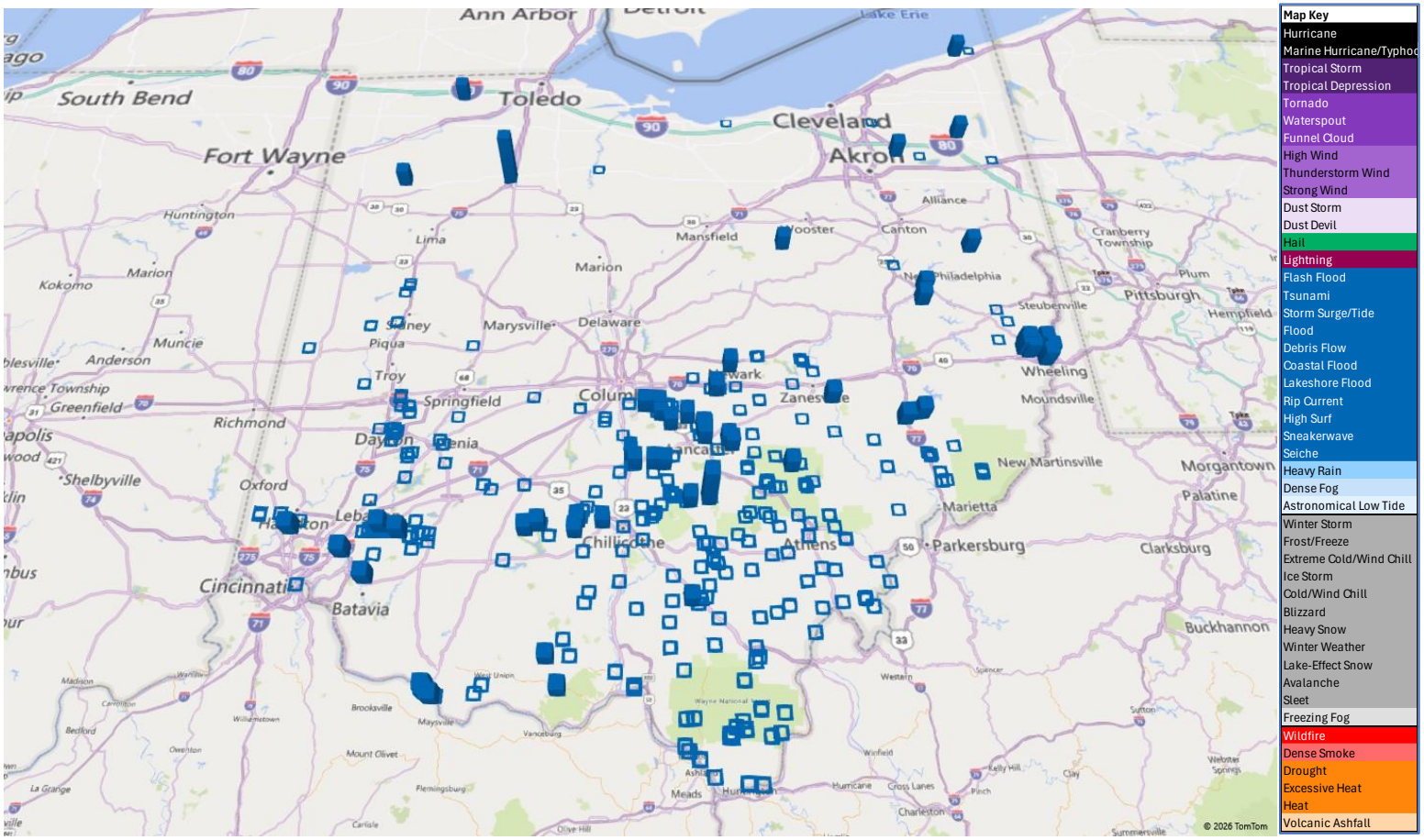
2025 U.S. View: Convection-Related Storm Events



Map 1B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

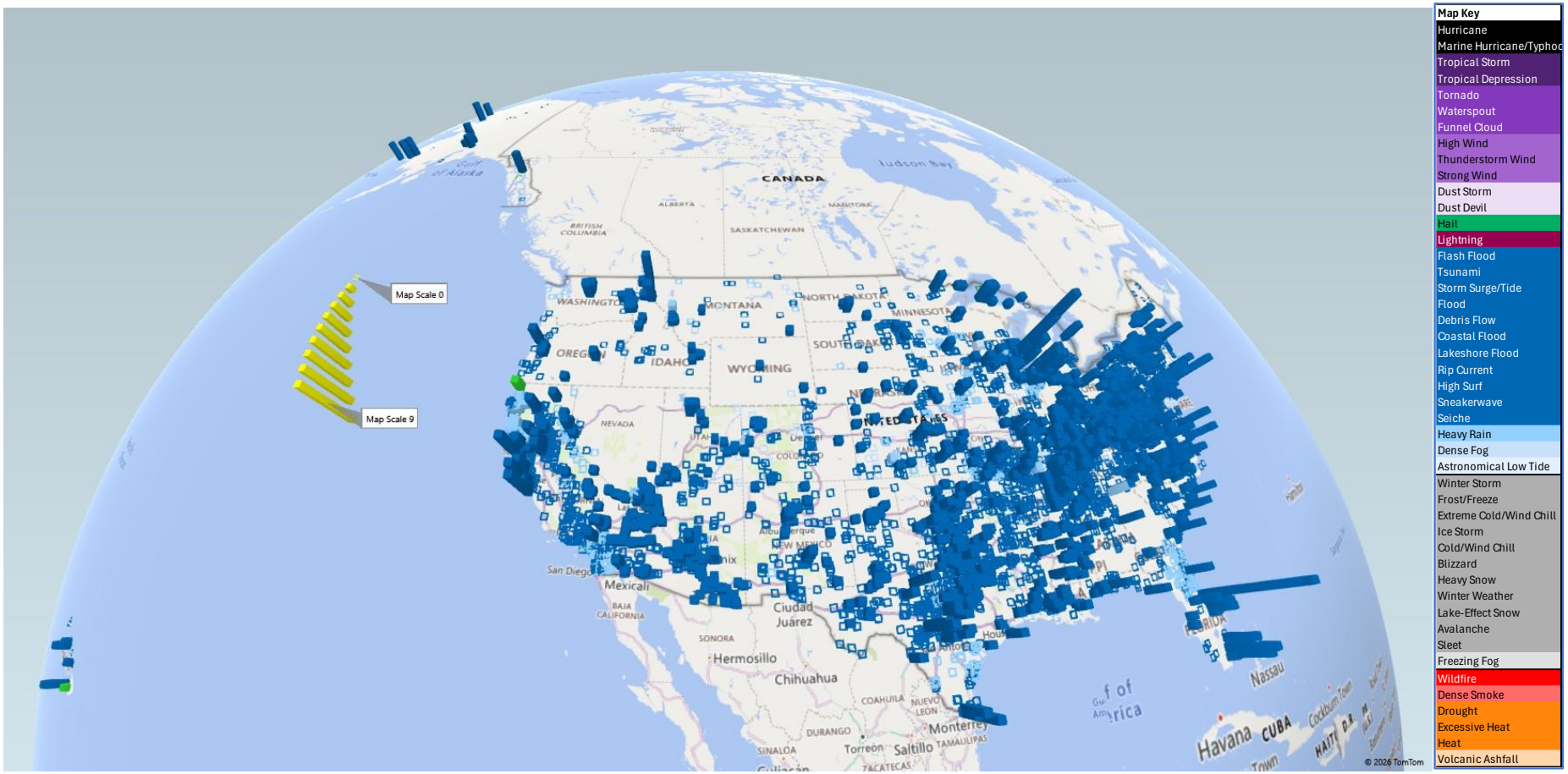
2025 Water-Related Storm Event Mapping

2025 Ohio View: Water-Related Storm Events



Map 2A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

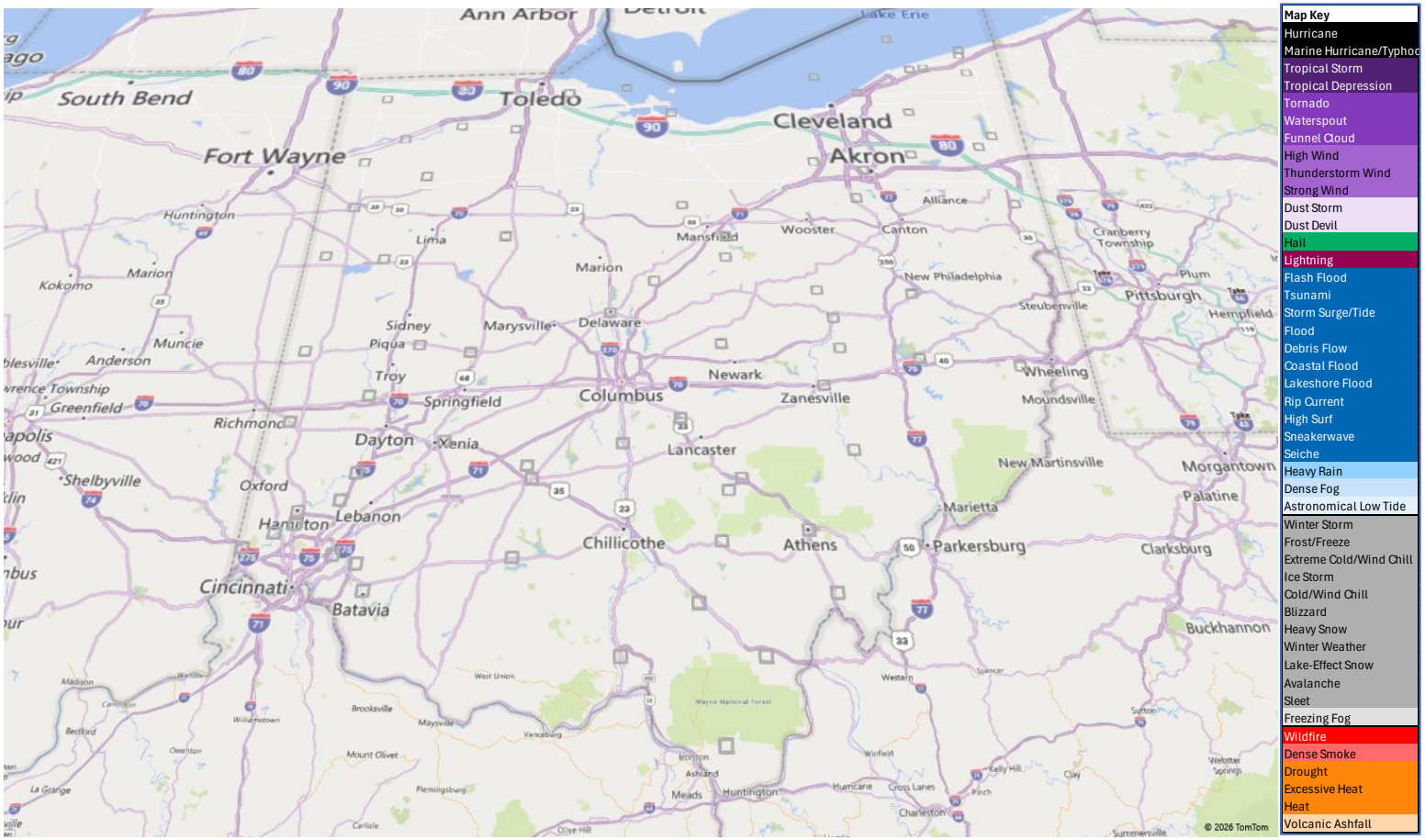
2025 U.S. View: Water-Related Storm Events



Map 2B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

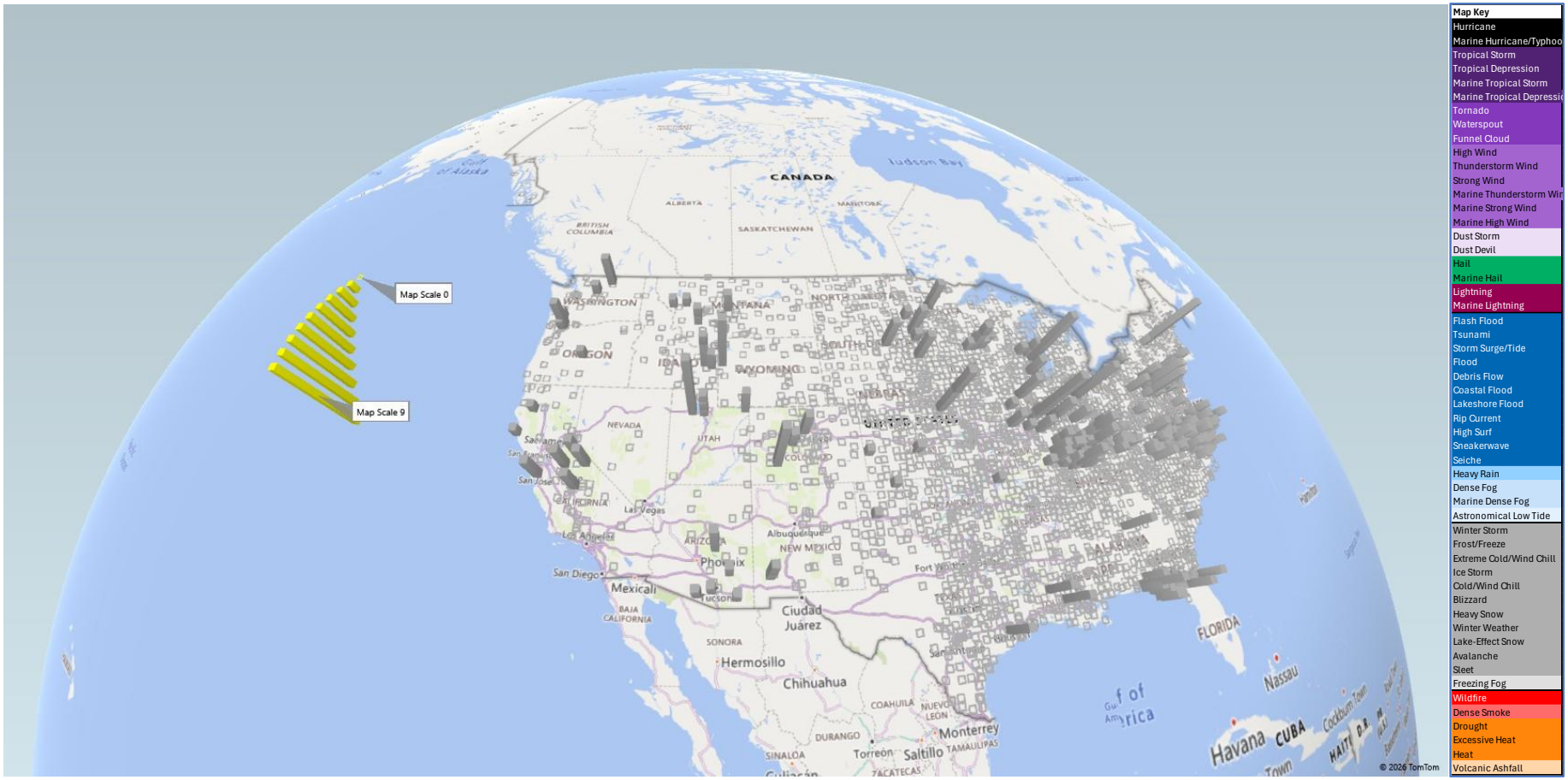
2025 Winter-Related Storm Events Mapping

2025 Ohio View: Winter-Related Storm Events



Map 3A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

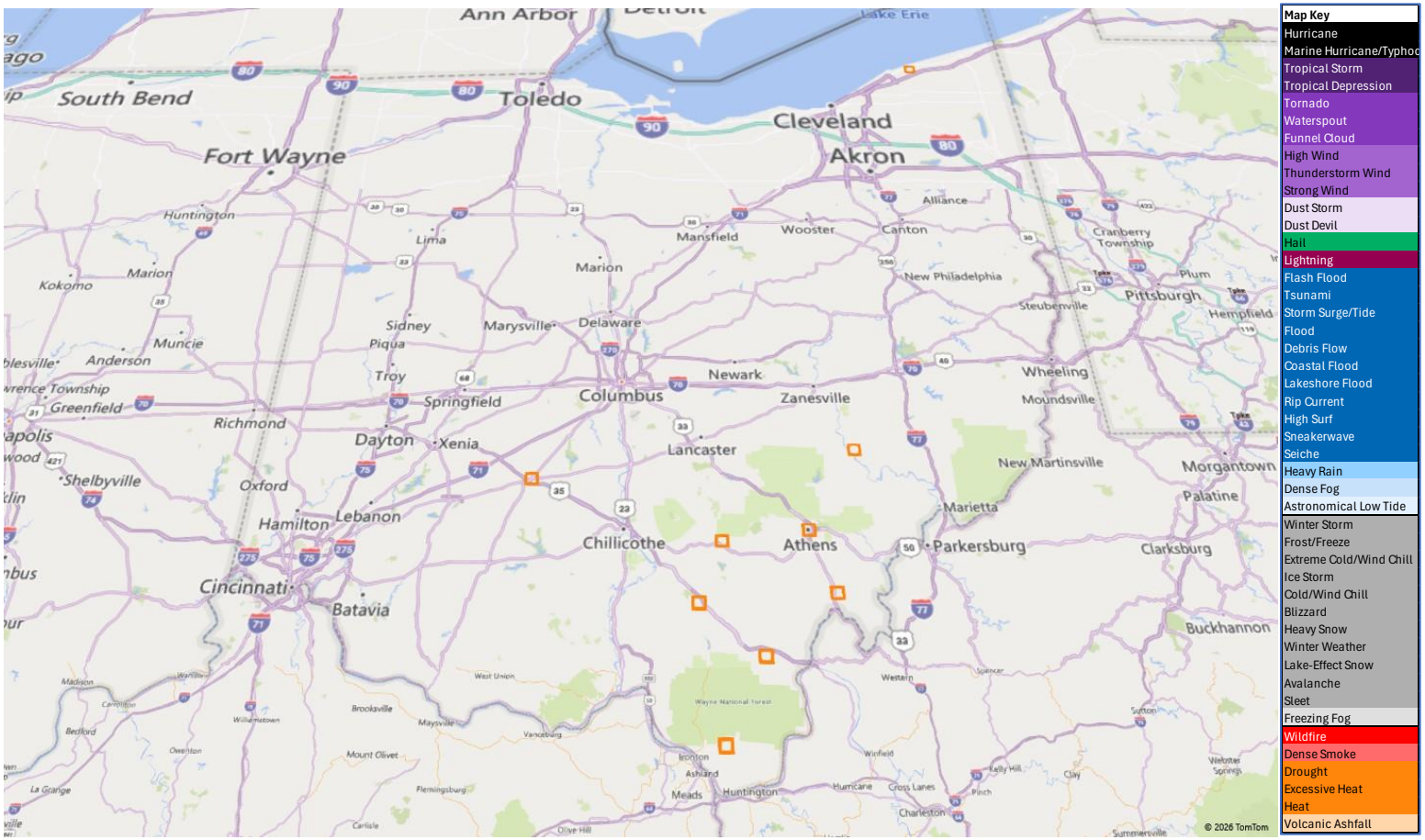
2025 United States View: Winter-Related Storm Events



Map 3B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

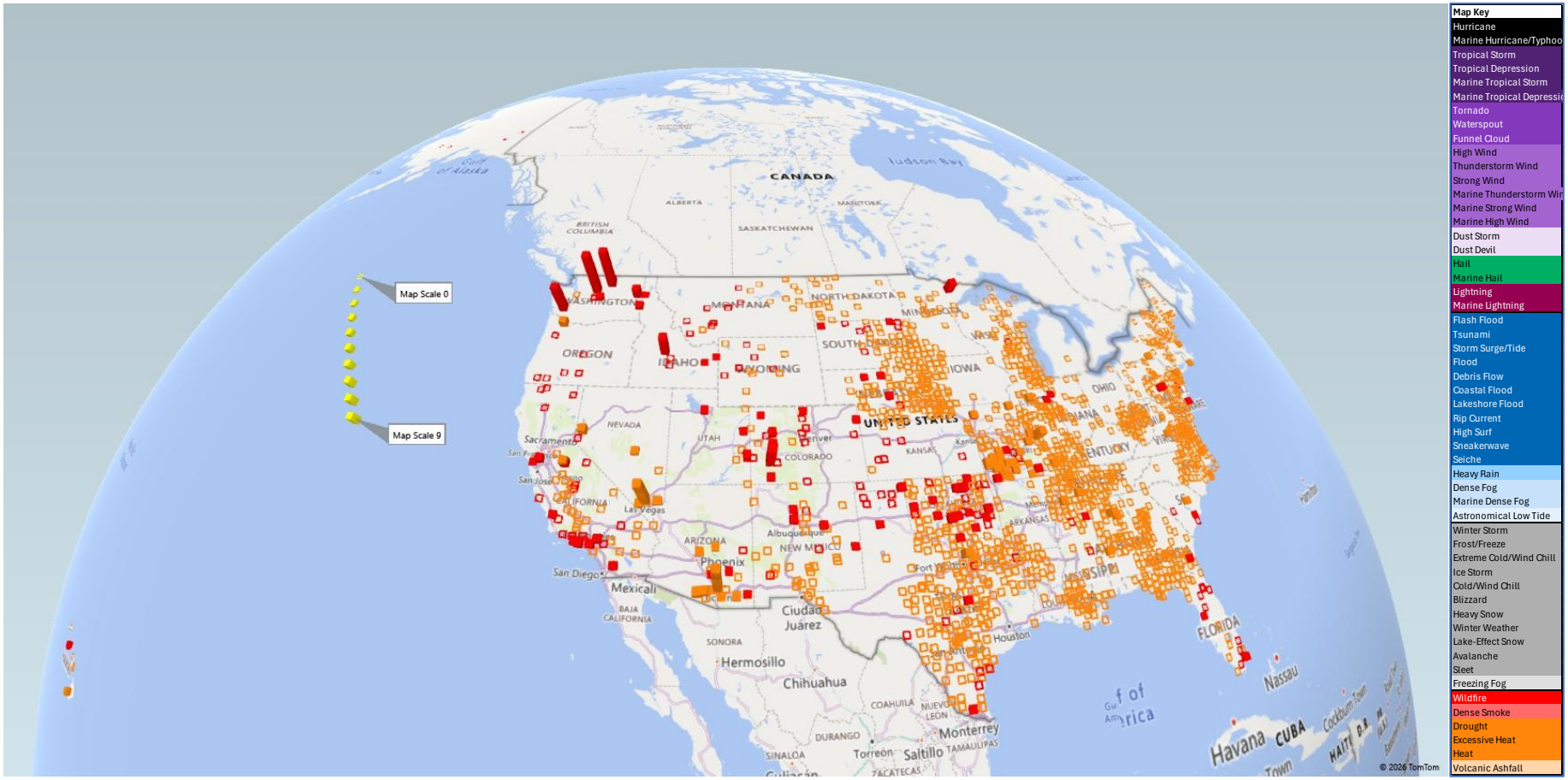
2025 Wildfire and Heat-Related Storm Events

2025 Ohio View: Wildfire and Heat-Related Storm Events



Map 4A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

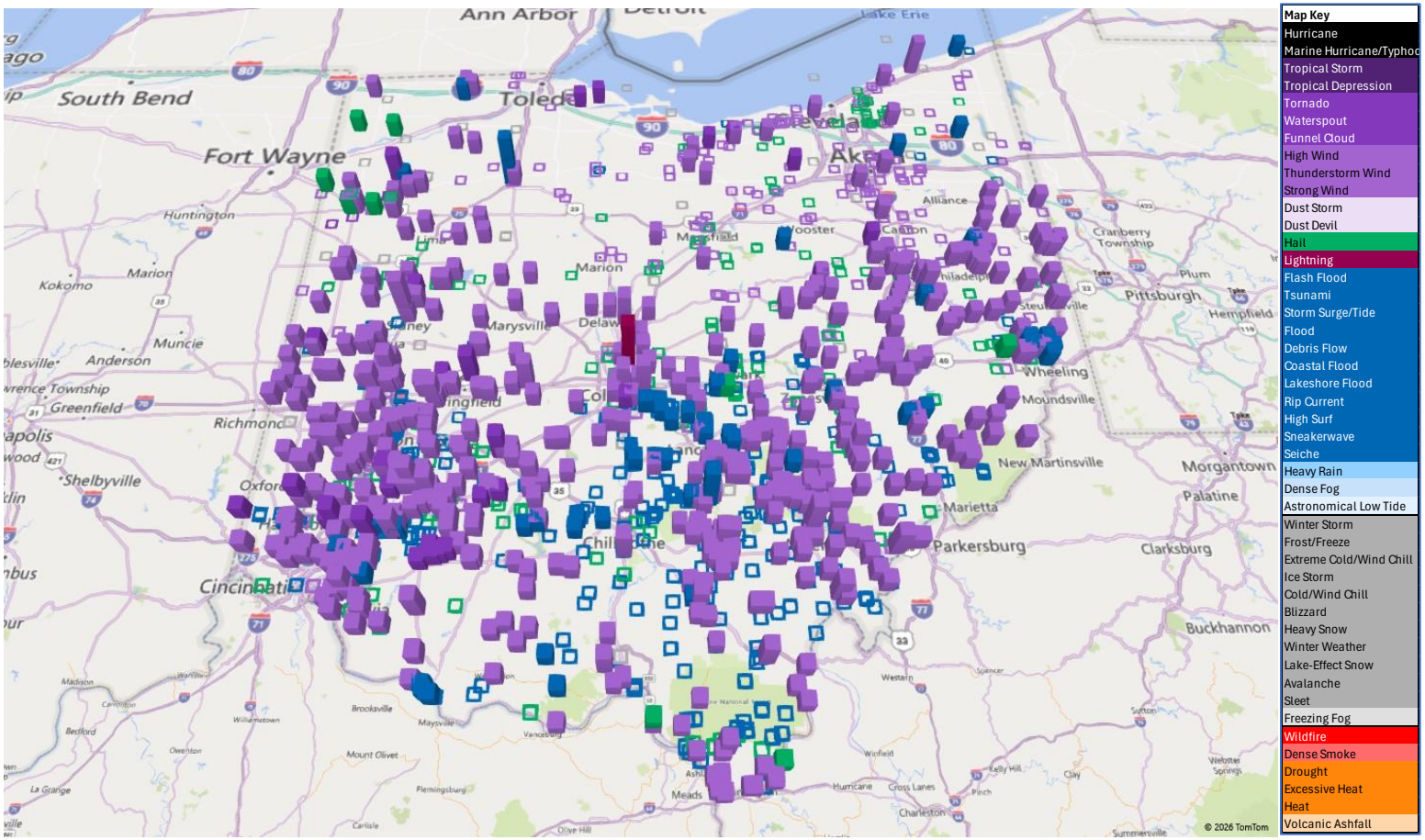
2025 United States View: Wildfire and Heat-Related Storm Events



Map 4B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

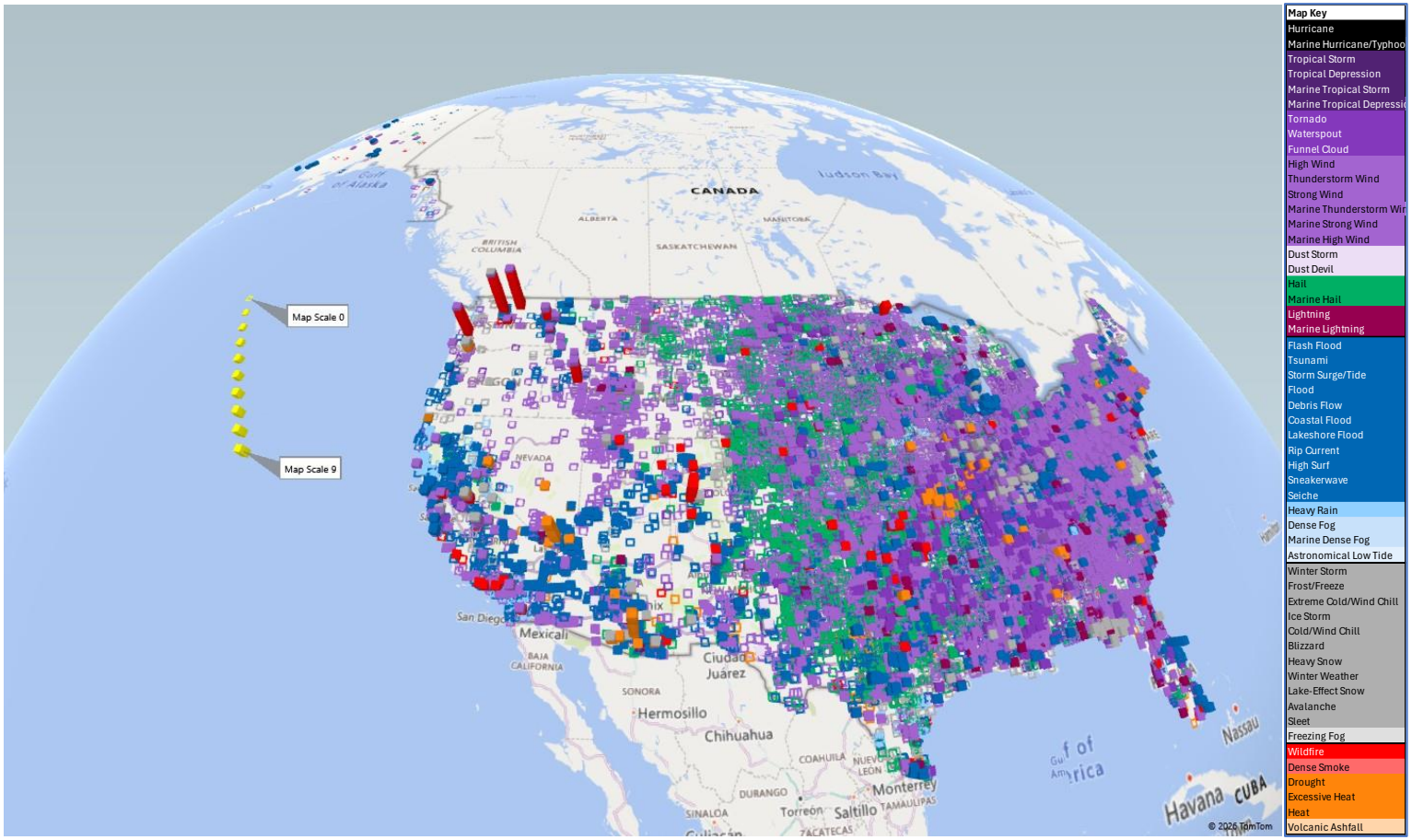
2025 All Storm Events Mapped Simultaneously

2025 Ohio View: All Storm Events Mapped Simultaneously



Map 5A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

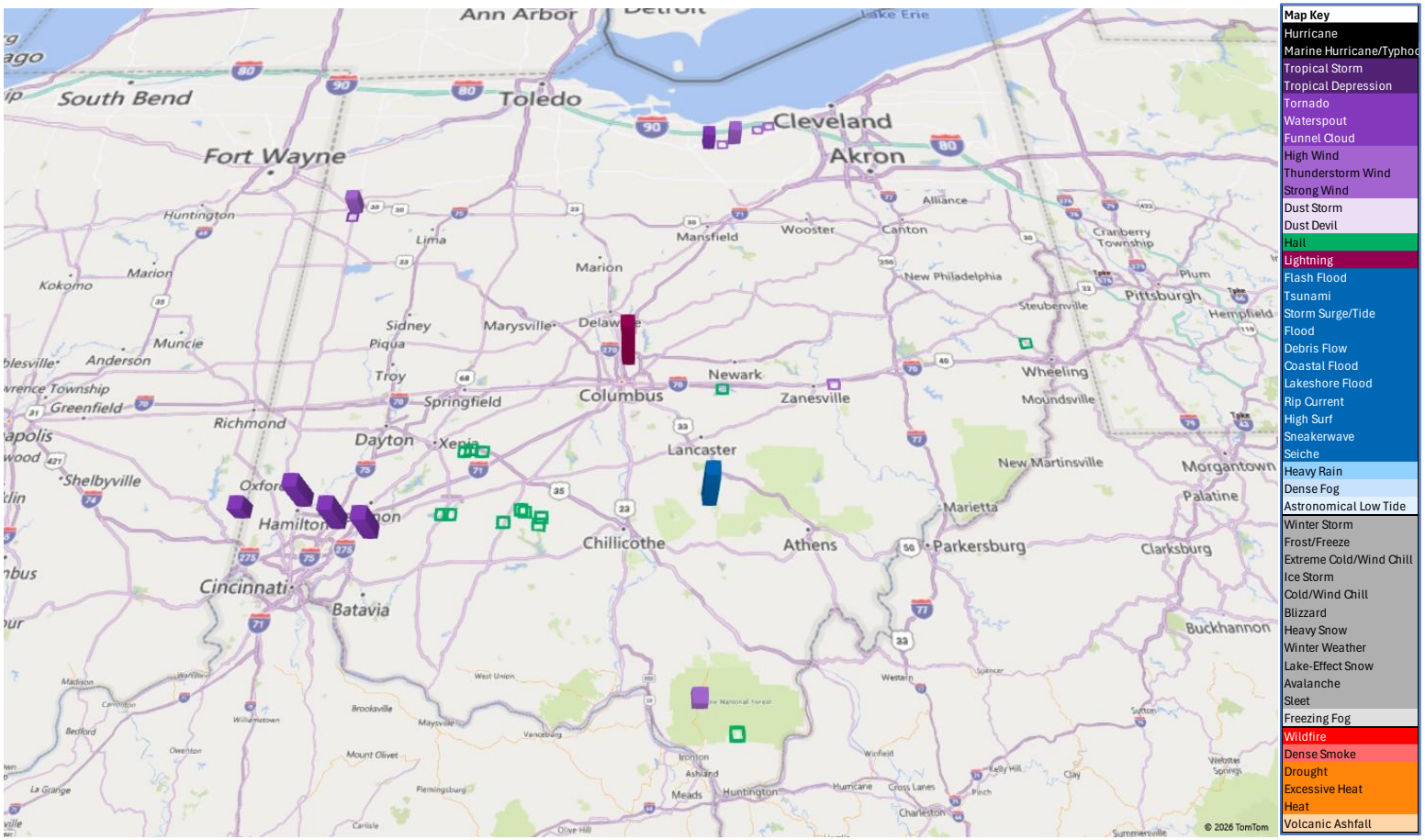
2025 United States View: All Storm Events Mapped Simultaneously



Map 5B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

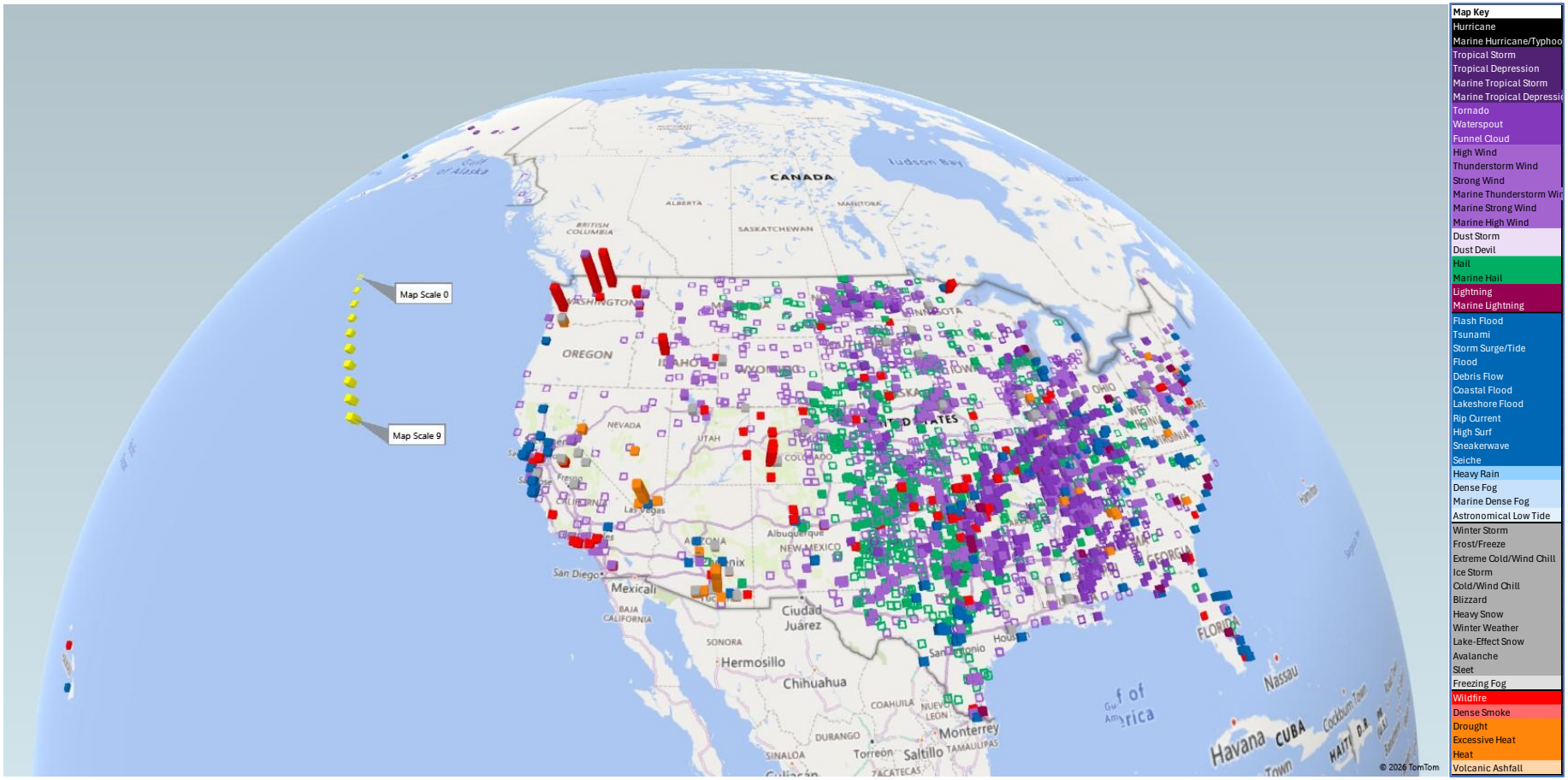
2025 Ohio Severe Storm Events

2025 Ohio View: Severe Storm Events Mapped Simultaneously



Map 6A | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

2025 United States View: Severe Storm Events Mapped Simultaneously



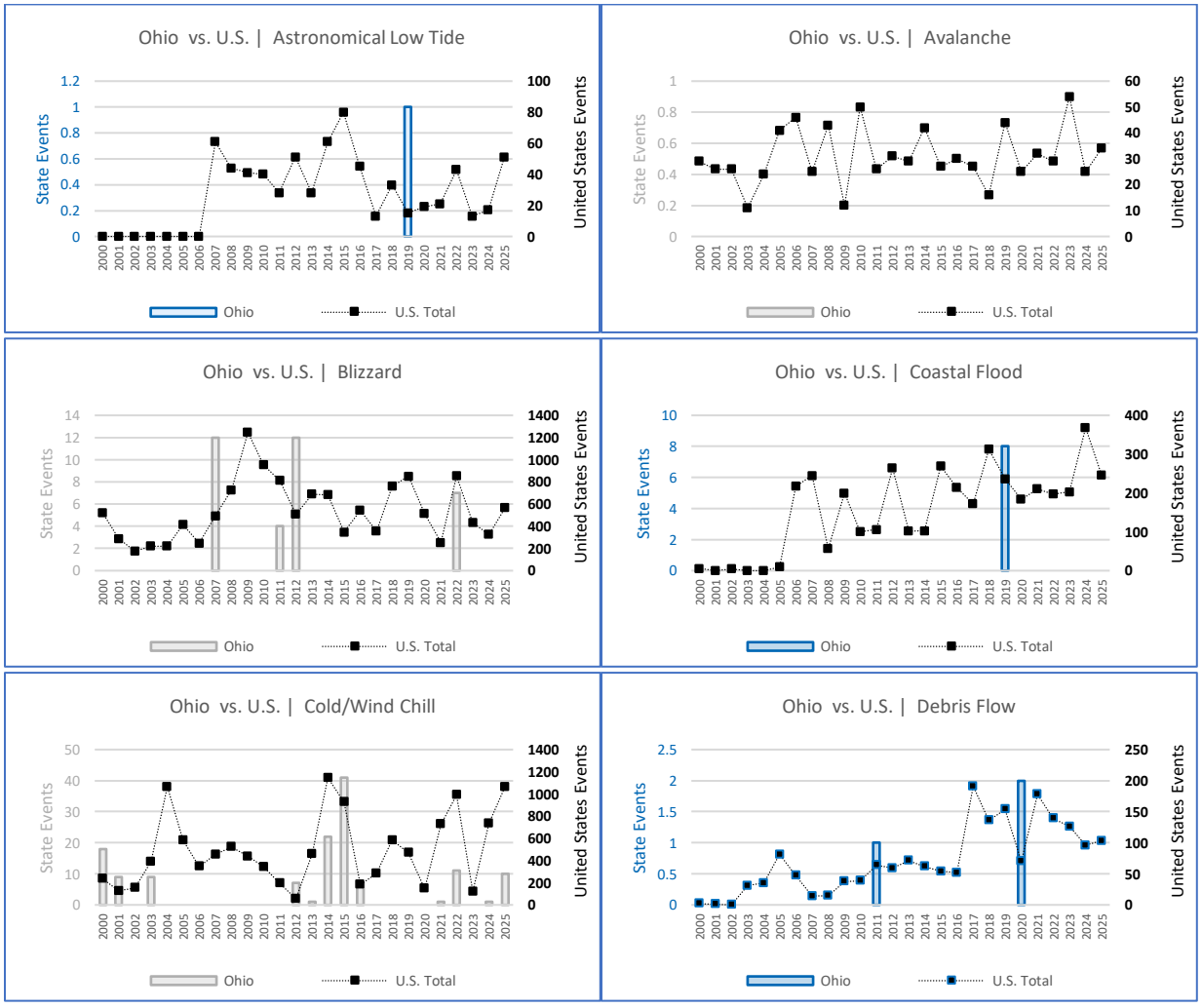
Map 6B | Map and Colors: Real Insurance Solutions Consulting. Data Source: NCEI, and Google Earth.

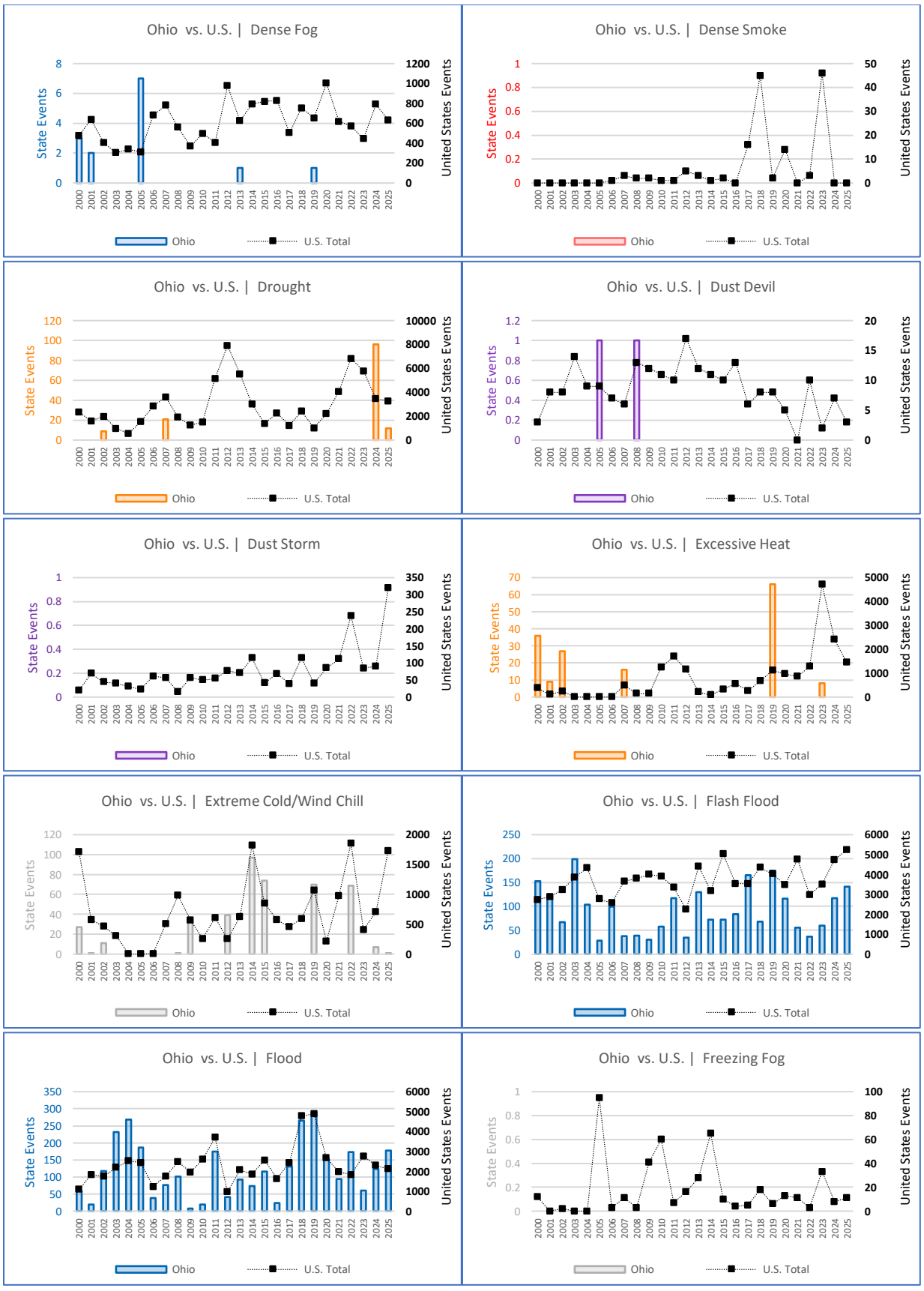
Ohio Storm Event Types Graphed By Year

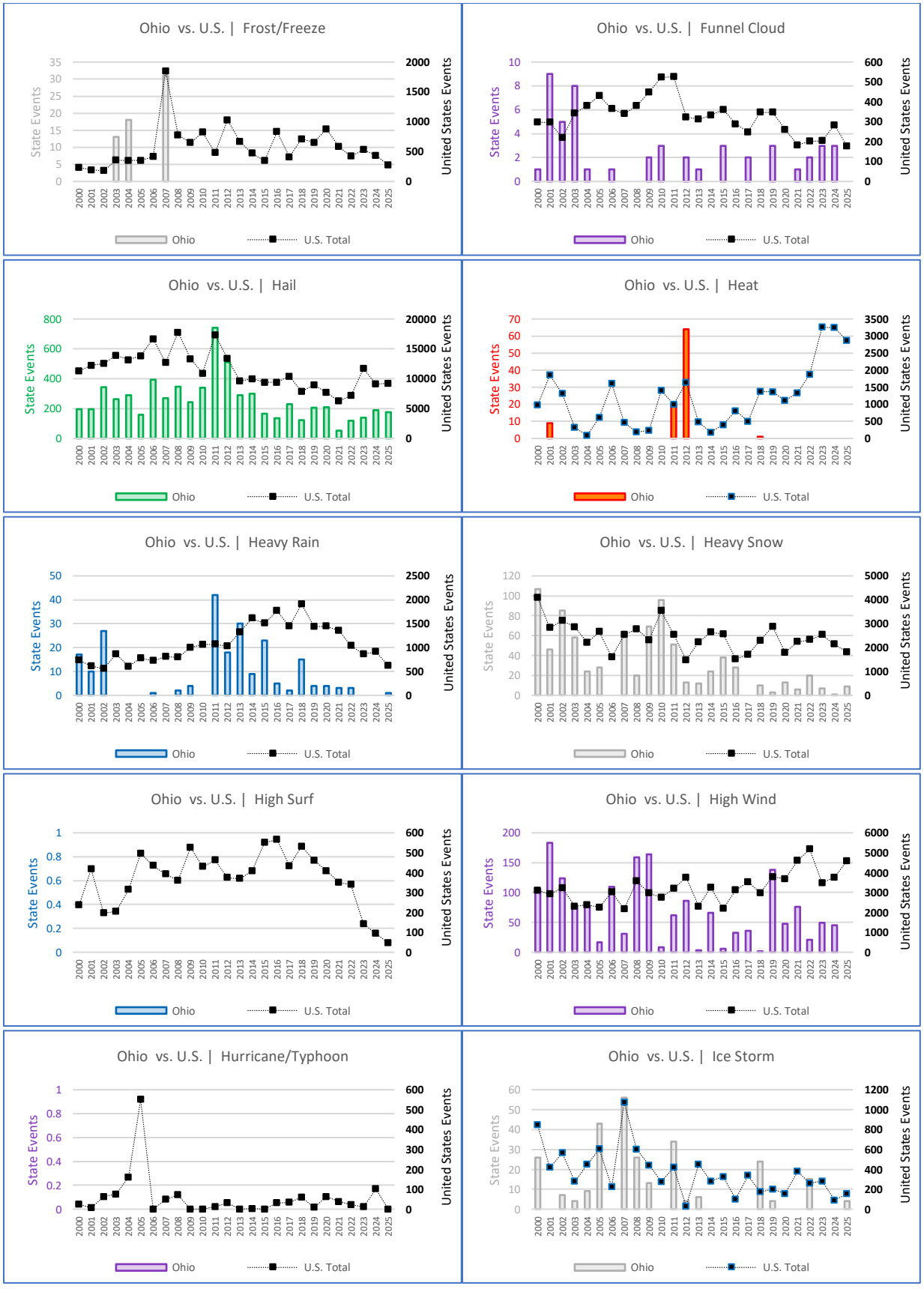
To complete this *2026 Ohio Storm Events Summary*, below are presented graphs which compare, on the same graph, the Ohio data for each type of Storm Event along with the corresponding United States data. Color schemes for each graph are kept consistent with the rest of this *Summary*. The scale for Ohio Storm Events data is found on the left-hand vertical axis, and the different scale required for United States data is found on the right-hand vertical axis.

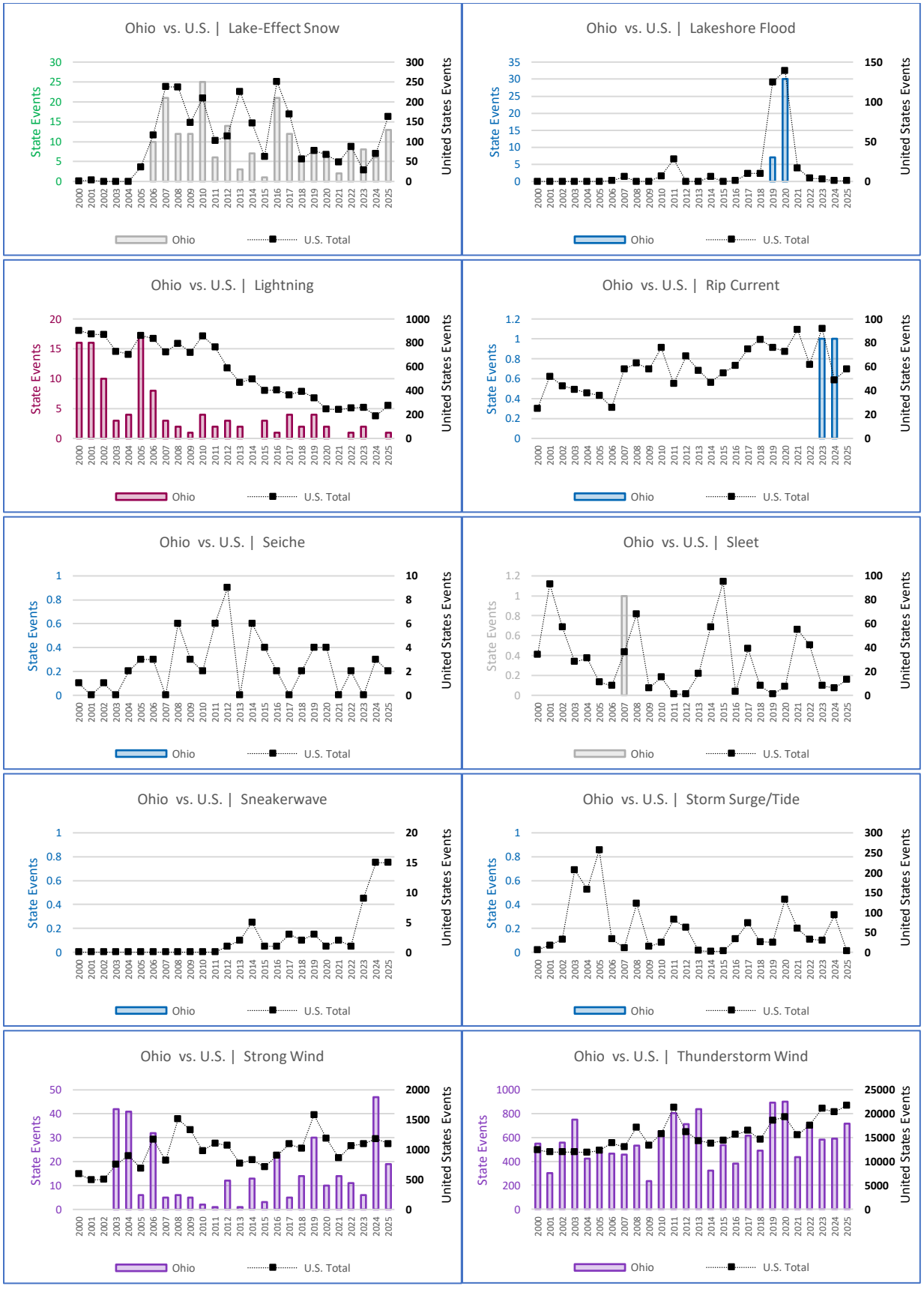
Storm Event graphs are presented in alphabetical order by type of Storm Event. Each graph covers all the years of Storm Event data included in this *Summary*, which is 2000-2025. As previously mentioned, eliminated from display are any Marine Events, and Northern Lights. And the older reference to Hurricane (Typhoons) is consolidated with Hurricanes, into a single Storm Event in that graph.

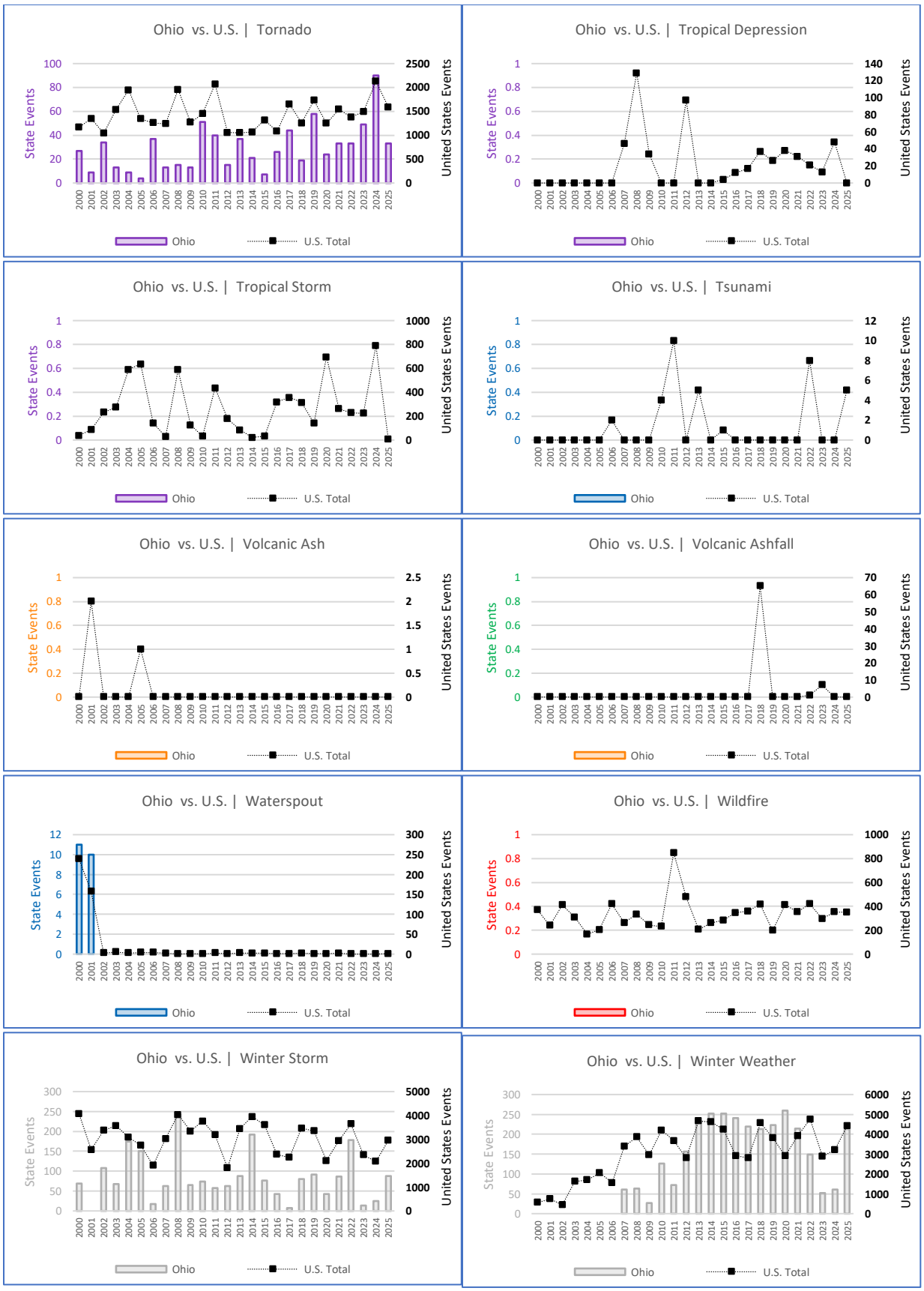
Note: Figure numbers are NOT provided for each Storm Event under each graph below. This is due to space considerations.




Ohio vs. U.S. | Dense Fog
Ohio vs. U.S. | Dense Smoke
Ohio vs. U.S. | Drought
Ohio vs. U.S. | Dust Devil
Ohio vs. U.S. | Dust Storm
Ohio vs. U.S. | Excessive Heat
Ohio vs. U.S. | Extreme Cold/Wind Chill
Ohio vs. U.S. | Flash Flood
Ohio vs. U.S. | Flood
Ohio vs. U.S. | Freezing Fog
State Events
United States Events
Ohio
U.S. Total


Ohio vs. U.S. | Frost/Freeze
Ohio vs. U.S. | Funnel Cloud
Ohio vs. U.S. | Hail
Ohio vs. U.S. | Heat
Ohio vs. U.S. | Heavy Rain
Ohio vs. U.S. | Heavy Snow
Ohio vs. U.S. | High Surf
Ohio vs. U.S. | High Wind
Ohio vs. U.S. | Hurricane/Typhoon
Ohio vs. U.S. | Ice Storm
State Events
United States Events
Ohio
U.S. Total


Ohio vs. U.S. | Lake-Effect Snow
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Lakeshore Flood
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Lightning
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Rip Current
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Seiche
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Sleet
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Sneakerwave
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Storm Surge/Tide
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Strong Wind
State Events
United States Events
Ohio
U.S. Total
Ohio vs. U.S. | Thunderstorm Wind
State Events
United States Events
Ohio
U.S. Total



Data Source: NCEI Storm Events Database

Appendix #1–NCEI Storm Event Descriptions and Directives Summarized

On July 26, 2021, the National Weather Service's (NWS) Chief Operating Officer, John D. Murphy, issued Instruction 10-1605, which updated NCEI's weather event reporting directives. That document issued Storm Event directives and descriptions to the many agencies, entities, and sources that observe Storm Events, collect Storm Event data, and enter that data into the NOAA/NCEI Storm Events database for the National Weather Service.

Instruction 10-1605 is an extensive, 100 + page document, and a resource which has guided Real Insurance Solutions Consulting in the compilation and completion of this *2026 Ohio Storm Events Summary*. On the following pages are, for the reader's easier access and greater understanding of the official reporting of Storm Events, shortened, summarized versions of the NCEI directives and descriptions for each Storm Event.

The complete Instruction 10-1605 can be found online at
https://www.ncdc.noaa.gov/stormevents/pd01016005curr.pdf

Storm Event	Description of Storm Events (Summarized By Real Insurance Solutions Consulting)
Avalanche	A mass of snow, sometimes containing rocks, ice, trees, or other debris, that moves rapidly down a steep slope, resulting in a fatality, injury, or significant damage. If a search team inadvertently starts another avalanche, it will be entered as a new Avalanche event.
Blizzard	A winter storm which produces the following conditions for three (3) consecutive hours or longer: (1) sustained winds or frequent gusts 30 knots (35 mph) or greater, and (2) falling and/or blowing snow reducing visibility frequently to less than 1/4 mile. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Coastal Flood	Flooding of coastal areas due to the vertical rise above normal water level caused by strong, persistent onshore wind, high astronomical tide, and/or low atmospheric pressure, resulting in damage, erosion, flooding, fatalities, or injuries. Coastal areas are defined as those portions of coastal land zones (coastal county/parish) adjacent to the waters, bays, and estuaries of the oceans. Farther inland, the Storm Data preparer determines the boundary between coastal and inland areas, where flood events will be encoded as Flash Flood or Flood rather than Coastal Flood. Terrain (elevation) features will determine how far inland the coastal flooding extends.
Cold/Wind Chill	Period of low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined advisory (typical value is -18°F or colder) conditions. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. There can be situations where advisory criteria are not met, but the combination of seasonably cold temperatures and low wind chill values (roughly 15°. F below normal) may result in a fatality. In these situations, a cold/wind chill event may be documented if the weather conditions were the primary cause of death as determined by a medical examiner or coroner. Normally, cold/wind chill conditions should cause human and/or economic impact.
Debris Flow	A slurry of loose soil, rock, organic matter, and water, similar to wet concrete, which is capable of holding particles larger than gravel in suspension. They can mobilize from landslides on steep, nearly saturated slopes or be triggered by intense rain after wildfires. They can travel several miles from their source, growing in size as they pick up sediment, boulders, trees, cars, and other material. High velocity flows can transport large boulders in suspension and cause catastrophic damage, but even slower debris flows can rapidly infill channels, divert streams, and destroy automobiles, buildings, and infrastructure. Hyperconcentrated flows can also carry significant amounts of sediment and debris and are frequently mistaken for debris flows. However, unlike hyperconcentrated flows that have anywhere from 5-10 percent up to 20-60 percent sediment by volume, debris flows typically exceed 50 percent sediment by volume and the flow behavior is significantly controlled by the entrained sediment instead of the water. Many, but not all, flash floods originating in burn scars also contain debris flows.
Dense Fog	Water droplets suspended in the air just above the Earth's surface reducing visibility to values equal to or below locally/regionally established values for dense fog (usually 1/4 mile or less) and impacting transportation or commerce. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. Accidents, which resulted in injuries or fatalities, during a dense fog event, are reported using this event category. These injuries or fatalities should be listed as indirect.
Dense Smoke	Dense smoke, reducing visibilities to values equal to or below locally/regionally established values (usually ¼ mile or less), that adversely affects people and/or impacts transportation or commerce. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. Dense smoke in various concentrations suspended in the air at the Earth's surface can cause problems for people with heart or respiratory ailments.
Drought	Drought is a deficiency of moisture that results in adverse impacts on people, animals, or vegetation over a sizeable area. Conceptually, drought is a protracted period of deficient precipitation resulting in extensive damage to crops, resulting in loss of yield. There are different kinds of drought: meteorological, agricultural, hydrological, and social-economic. Each kind of drought starts and ends at different times.
Dust Devil	A ground-based, rotating column of air, not in contact with a cloud base, usually of short duration, rendered visible by dust, sand, or other debris picked up from the ground, resulting in a fatality, injury, or damage. Dust devils usually result from intense, localized heating interacting with the micro-scale wind field. Dust devils that do not produce a fatality, injury, or significant damage may be entered as an event if they are unusually large, noteworthy, or create strong public or media interest.
Dust Storm	Strong winds over dry ground, with little or no vegetation, that lift particles of dust or sand, reducing visibility below locally/ regionally established values (usually 1/4 mile or less), which could result in a fatality, injury, damage, or major disruption of transportation. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Excessive Heat Extreme	Excessive Heat results from a combination of high temperatures (well above normal) and high humidity. An Excessive Heat event occurs and is reported in Storm Data whenever heat index values meet or exceed locally/regionally established excessive heat warning thresholds. Fatalities (directly-related) or major

Storm Event	Description of Storm Events (Summarized By Real Insurance Solutions Consulting)
	impacts to human health that occur during excessive heat warning conditions are reported using this event category. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Cold/Wind Chill	A period of extremely low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined warning criteria (typical value around -35°F or colder). If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. Normally these conditions should cause significant human and/or economic impact. However, if fatalities occur with cold temperatures/wind chills but extreme cold/wind chill criteria are not met, the event should also be included in Storm Data as a Cold/Wind Chill event and the fatalities are direct.
Flash Flood	A life-threatening, rapid rise of water into a normally dry area beginning within minutes to multiple hours of the causative event (e.g., intense rainfall, dam failure, ice jam). Ongoing flooding can intensify to the shorter term flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters. Flash flooding, such as dangerous small stream or urban flooding and dam or levee failures, requires immediate action to protect life and property. Conversely, flash flooding can transition into flooding as rapidly rising waters abate. The Storm Data preparer uses professional judgment in determining when the event is no longer characteristic of a Flash Flood and becomes a Flood.
Flood	Any high flow, overflow, or inundation by water which causes damage. In general, this would mean the inundation of a normally dry area caused by an increased water level in an established watercourse, or ponding of water, that poses a threat to life or property. If the event is considered significant, it should be entered into Storm Data, even if it only affected a small area. Refer to the Flash Flood event (section 14) for guidelines for differentiating between Flood and Flash Flood events.
Freezing Fog	Fog which freezes on contact with exposed objects and forms a coating of rime and/or glaze, resulting in an impact on transportation, commerce, or individuals. Even small accumulations of ice can have an impact. Freezing fog can occur with any visibility of six (6) miles or less. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Frost/Freeze	A surface air temperature of 32 degrees Fahrenheit (°F) or lower, or the formation of ice crystals on the ground or other surfaces, for a period of time long enough to cause human or economic impact, during the locally defined growing season. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Funnel Cloud	A rotating, visible extension of a cloud pendant from a convective cloud with circulation not reaching the ground. The funnel cloud should be large, noteworthy, or create strong public or media interest to be entered.
Hail	Frozen precipitation in the form of balls or irregular lumps of ice. Although the minimum size of hail qualifying as “severe” is 1 inch diameter, all reports of hail that is 3/4 of an inch or larger in diameter will be entered. Observed hail accumulations of smaller sizes, or instances where hail accumulates to a measurable depth (e.g., “around 3 inches deep”) that cause property and/or crop damage, should be entered. Injuries or fatalities that result from hail of any size should be entered. Maximum hail size will be encoded for all hail reports entered.
Heat	A period of heat resulting from the combination of high temperatures (above normal) and relative humidity. A Heat event occurs and is reported in Storm Data whenever heat index values meet or exceed locally/regionally established advisory thresholds. Fatalities or major impacts on human health occurring when ambient weather conditions meet heat advisory criteria are reported using the Heat event. If the ambient weather conditions are below heat advisory criteria, a Heat event entry is permissible only if a directly-related fatality occurred due to unseasonably warm weather, and not man-made environments.
Heavy Rain	Unusually large amount of rain which does not cause a Flash Flood or Flood event, but causes damage, e.g., roof collapse or other human/economic impact. Heavy Rain will no longer be acceptable as a means to record low-impact or isolated flood events. Urban and small stream flooding commonly occurs in poorly drained or low lying areas. These are types of areal flooding and are to be recorded as Flood events, not Heavy Rain.
Heavy Snow	Snow accumulation meeting or exceeding locally/regionally defined 12 and/or 24 hour warning criteria. This could mean values such as 4, 6, or 8 inches or more in 12 hours or less; or 6, 8, or 10 inches in 24 hours or less. If the event that occurred is considered significant, even if it affected a small area, it should be entered into Storm Data. In some heavy snow events, structural damage, due to the excessive weight of snow accumulations, may occur in the few days following the meteorological end of the event. The preparer should include this damage as part of the original event and give details in the narrative. Normally, strong winds or other precipitation types are not present in a Heavy Snow event. If they were, then the Winter Storm event should be used.
High Surf	Large waves breaking on or near shore, resulting from swell spawned by a distant storm or from strong onshore winds, causing a fatality, injury or damage. In addition, if accompanied by anomalous

Storm Event	Description of Storm Events (Summarized By Real Insurance Solutions Consulting)
	astronomical high tides, high surf may produce beach erosion and possible damage to beachfront structures. High surf conditions are often accompanied by rip currents and near-shore breaks. Occasionally, high surf conditions can sweep people off rocks along the shore causing them to drown. If this occurs, include the fatality in the High Surf event type category. The Storm Data preparer exercises professional judgment to determine whether the fatality or injury is a result of a High Surf event.
High Wind	Sustained non-convective winds of 35 knots (40 mph) or greater lasting for 1 hour or longer, or gusts of 50 knots (58 mph) or greater for any duration (or otherwise locally/regionally defined). In some mountainous areas, the above numerical values are 43 knots (50 mph) and 65 knots (75 mph), respectively. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.
Hurricane (Typhoon)	A tropical cyclone in which the maximum 1-minute sustained surface wind is 64 knots (74 mph) or greater. In the Atlantic Ocean or the North Pacific Ocean east of the International Date Line, this event would be labeled a Hurricane, and in the North Pacific Ocean west of the International Dateline, this event would be classified as a Typhoon.
Ice Storm	Ice accretion meeting or exceeding locally/regionally defined warning criteria (typical value is 1/4 or 1/2 inch or more). If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. The Storm Data preparer should include the times that ice accretion began, met criteria, and accretion ended. If the freezing rain was mixed with other precipitation types, then a Winter Storm event should be used.
Lakeshore Flood	Flooding of lakeshore areas due to the vertical rise of water above normal level caused by strong, persistent onshore wind and/or low atmospheric pressure, resulting in damage, erosion, flooding, fatalities, or injuries. Lakeshore areas are defined as those portions of land zones (coastal county/parish) adjacent to the waters of the Great Lakes and other lakes with specific assigned Marine Zones. Farther inland, the Storm Data preparer determines when and where to encode a flood event as Flash Flood or Flood. Terrain (elevation) features will determine how far inland the lakeshore flooding extends.
Lake-Effect Snow	Convective snow bands that occur in the lee of large bodies of water (e.g., the Great Lakes or the Great Salt Lake), when relatively cold air flows over warm water. In extreme cases, snowfall rates of several inches per hour and thunder and lightning may occur. Lake-effect snow accumulations meet or exceed locally defined 12 and/or 24 hour warning criteria (typical values of 6 to 8 inches within 12 hours or 8 to 10 inches within 24 hours). If the event is considered significant, even though it affected a small area, it should be entered into Storm Data.
Lightning	A sudden electrical discharge from a thunderstorm, resulting in a fatality, injury, and/or damage.
Marine Dense Fog	Water droplets suspended in the air just above the Earth's surface, resulting in a fatality, injury, or damage, over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones. This fog reduces visibility to values equal to or below locally/regionally established values for dense fog (usually less than one mile). This fog may impact transportation or commerce within a marine environment. Accidents which resulted in injuries, fatalities, or significant damage during a dense fog event over marine waters are reported using this event category.
Marine Hail	Hail 3/4 of an inch in diameter or larger, occurring over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones, will be entered. Hail 3/4 of an inch in diameter or larger, occurring immediately along the shorelines of the waters and bays should be entered as a Marine Hail event, especially if the NWSI 10-1605 JULY 26, 2021 A-50 storm moved over the near-shore waters (it is reasonable to assume it maintained its strength). Hail of smaller size, causing damage to watercraft or fixed platforms, should be entered. A maximum hail size will be entered.
Marine Heavy Freezing Spray	Ice accretions on exposed surfaces of fixed platforms or marine vessels on the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones, which lead to the loss of life or property damage, should be entered. Normally, an ice accretion at the rate of 3 millimeters (mm) per hour is considered to be heavy freezing spray. Ice accretions occurring immediately along the shorelines of the waters and bays should be entered as a Marine Heavy Freezing Spray event as well.
Marine High Wind	Non-convective, sustained winds or frequent gusts of 48 knots (55 mph) or more, resulting in a fatality, injury, or damage, over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones. These conditions would correspond to a "storm" situation (48 to 63 knots/55 to 73 mph), or a "hurricane-force" wind situation (64 knots or higher/74 mph or higher). A peak wind gust (estimated or measured) or maximum sustained wind value will be entered.

Storm Event	Description of Storm Events (Summarized By Real Insurance Solutions Consulting)
Marine Hurricane/Typhoon	A tropical cyclone occurring over the waters and bays of the ocean (those assigned specific Marine Forecast Zones) in which the maximum 1- minute sustained surface wind is 64 knots (74 mph) or greater and results in a fatality, injury, or damage to watercraft or fixed platforms. In the Atlantic Ocean or the North Pacific Ocean east of the International Date Line, this event would be labeled a Hurricane, and in the North Pacific Ocean west of the International Dateline, this event would be classified as a Typhoon.
Marine Lightning	A sudden electrical discharge from a thunderstorm, resulting in a fatality, injury, and/or damage, occurring over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones.
Marine Strong Wind	Non-convective, sustained winds or frequent gusts up to 47 knots (54 mph), resulting in a fatality, injury, or damage, occurring over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones. Wind speed values of 34 to 47 knots (39 to 54 mph) would correspond to a "gale" situation. A peak wind gust (estimated or measured) or maximum sustained wind value will be entered, in knots. Refer to sections 5.45 and 5.46 for related information.
Marine Thunderstorm Wind	Winds, associated with thunderstorms, occurring over the waters and bays of the ocean, Great Lakes, and other lakes with assigned specific Marine Forecast Zones with speeds of at least 34 knots (39 mph) for 2 hours or less, or winds of any speed that result in a fatality, injury, or damage to watercraft or fixed platforms. Similar thunderstorm winds occurring immediately along the shorelines (to a maximum distance of 1 mile inland) of the waters and bays should be entered as a Marine Thunderstorm Wind, especially if the storm then moved out over the near-shore waters (it is reasonable to assume it maintained its strength). Marine thunderstorm winds occur within 45 minutes before or after lightning is observed or detected.
Marine Tropical Depression	Damaging tropical depression force winds occurring over the waters and bays of the ocean (those assigned specific Marine Forecast Zones), in which the 1-minute sustained (not gust) surface wind is less than 33 knots (39 mph) for 2 hours or more, that result in a fatality, injury, or damage to watercraft or fixed platforms. Similar tropical depression force winds occurring immediately along the shorelines (to a maximum distance of 1 mile inland) of the waters and bays of the ocean should be entered as a "Marine Tropical Depression."
Marine Tropical Storm	A tropical cyclone occurring over the waters and bays of the ocean (those assigned specific Marine Forecast Zones) in which the maximum 1-minute sustained surface wind is equal to or greater than 34 knots (39 mph) but less than 64 knots (74 mph) for 2 hours or more and results in a fatality, injury, or damage to watercraft or fixed platforms.
Rip Current	A narrow channel of water that flows away from the beach, through the surf zone and dissipates beyond the breaking waves. Rip currents develop in the waters and bays of the ocean, Great Lakes and other lakes with assigned specific Marine Forecast Zones), or any location that experiences breaking waves. They often form when the gradient wind is strong and directly onshore or when swells from a distant extra-tropical or tropical cyclone impinge on the coast. Rip currents will be listed in Storm Data only when they cause a drowning, near- drowning, result in one or more rescues, or damage to watercraft. Events associated with other surf-related currents, such as long-shore or tidal currents, should be included in the appropriate event type category.
Seiche	A standing-wave oscillation in any enclosed lake that continues after a forcing mechanism has ceased and results in shoreline flooding and/or damage. In the Great Lakes and large inland lakes, large pressure differences, high winds, or fast-moving squall lines may act as the forcing mechanism. In addition, earthquakes or debris flows can initiate a seiche. When the forcing mechanism ends, the water sloshes back and forth from one end of the lake to the other, causing water level fluctuations of up to several feet before damping out.
Sleet	Sleet accumulations meeting or exceeding locally/regionally defined warning criteria (typical value is 1/2 inch or more). The Storm Data preparer should include in the narrative the times that sleet accumulation began, met criteria, and ended.
Sneaker Wave	A sneaker wave is the first wave of a set of larger waves that follows a period of relatively calm ocean conditions, resulting in a fatality or damage. The period of calm preceding a sneaker wave can last up to thirty minutes. This period of calm causes beach goers to inaccurately assess the hazard, leading to behavior that places them in harm's way, such as getting too close to the surf with attention diverted. The hazard caused by sneaker waves is not correlated to the absolute magnitude of the size, but it instead is derived from the relative size, compared to the size of the waves that preceded the sneaker wave
Storm Surge/Tide	For coastal and select lakeshore areas, the vertical rise above normal water level associated with a storm of tropical origin (e.g., hurricane, typhoon, tropical storm, or subtropical storm), caused by any combination of strong, persistent onshore wind, high astronomical tide and low atmospheric pressure, resulting in damage, erosion, flooding, fatalities, or injuries. Note: Coastal flooding not associated with a typhoon, hurricane, tropical storm or subtropical storm should be reported under the Coastal Flood event;

Storm Event	Description of Storm Events (Summarized By Real Insurance Solutions Consulting)
	flooding adjacent to the Great Lakes and other lakes with specific assigned Marine Zones should be reported under the Lakeshore Flood event.
Strong Wind	Non-convective winds gusting less than 50 knots (58 mph), or sustained winds less than 35 knots (40 mph), resulting in a fatality, injury, or damage. Consistent with regional guidelines, mountain states may have higher criteria. A peak wind gust (estimated or measured) or maximum sustained wind will be entered.
Thunderstorm Wind	Winds, arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 50 knots (58 mph), or winds of any speed (non-severe thunderstorm winds below 50 knots) producing a fatality, injury, or damage. Maximum sustained winds or wind gusts (measured or estimated) equal to or greater than 50 knots (58 mph) will always be entered. Events with maximum sustained winds or wind NWSI 10-1605 JULY 26, 2021 A-68 gusts less than 50 knots (58 mph) should be entered as a Storm Data event only if the result in fatalities, injuries, or serious property damage. Storm Data software permits only one event name for encoding severe and non-severe thunderstorm winds. The Storm Data software program requires the preparer to indicate whether the sustained wind or wind gust value was measured or estimated.
Tornado	A violently rotating column of air, extending to or from a cumuliform cloud or underneath a cumuliform cloud, to the ground, and often (but not always) visible as a condensation funnel. For a vortex to be classified as a tornado, it must be in contact with the ground and extend to/from the cloud base, and there should be some semblance of ground-based visual effects such as dust/dirt rotational markings/swirls, or structural or vegetative damage or disturbance.
Tropical Depression	A tropical cyclone in which the 1-minute sustained wind speed is 33 knots (38 mph), or less. A Tropical Depression should be included as an entry when these conditions are experienced in the WFO's CWA. The tropical depression number will be included in the narrative section.
Tropical Storm	A tropical cyclone in which the 1-minute sustained surface wind ranges from 34 to 63 knots (39 to 73 mph). A Tropical Storm should be included as an entry when these conditions are experienced in the WFO's CWA.
Tsunami	A series of very long waves generated by any rapid, large-scale disturbance of the sea (e.g., an underwater earthquake, landslide, or volcanic eruption) resulting in a fatality, injury or damage. When the wave reaches the coast, a tsunami may appear as a rapidly rising or falling tide, a series of breaking waves, or even a bore. The event narrative should include the source of the Tsunami event (e.g., 8.5 magnitude earthquake near the western coast of Chile), the height and time of the maximum wave, and the inland distance of inundation. Any other characteristics, such as the observation of water draining from bays should be included.
Volcanic Ash	Fine particles of mineral matter from a volcanic eruption which can be dispersed long distances by winds aloft, resulting in fatalities, injuries, damage, or a disruption of transportation and/or commerce.
Waterspout	A rotating column of air, pendant from a convective cloud, with its circulation extending from cloud base to the water surface of bays and waters of the Great Lakes, and other lakes with assigned Marine Forecast Zones. A condensation funnel may or may not be visible in the vortex.
Wildfire	Any significant forest fire, grassland fire, rangeland fire, or wildland-urban interface fire that consumes the natural fuels and spreads in response to its environment. "Significant" is defined as a wildfire that causes one or more fatalities, one or more significant injuries, and/or property damage (optional: include significant damages to firefighting equipment if loss estimates are available). Professional judgment should be used in deciding to include a Wildfire in Storm Data. In general, forest fires smaller than 100 acres, grassland or rangeland fires smaller than 300 acres, and wildland use fires not actively managed as wildfires should not be included. This is consistent with the definitions for significant and/or large fires utilized by most land use agencies.
Winter Storm	A winter weather event that has more than one significant hazard (i.e., heavy snow and blowing snow; snow and ice; snow and sleet; sleet and ice; or snow, sleet and ice) and meets or exceeds locally/regionally defined 12 and/or 24 hour warning criteria for at least one of the precipitation elements. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data. Normally, a Winter Storm would pose a threat to life or property.
Winter Weather	A winter precipitation event that causes a death, injury, or a significant impact to commerce or transportation, but does not meet locally/regionally defined warning criteria. A Winter Weather event could result from one or more winter precipitation types (snow, or blowing/drifting snow, or freezing rain/drizzle). The Winter Weather event can also be used to document out-of-season and other unusual or rare occurrences of snow, or blowing/drifting snow, or freezing rain/drizzle. If the event that occurred is considered significant, even though it affected a small area, it should be entered into Storm Data.

2026 Ohio Storm Events Summary provided by Real Insurance Solutions Consulting, LLC

This *2026 Ohio Storm Events Summary* has provided the reader with a mostly visual presentation of Ohio weather events since the year 2000, with in-depth Storm Events detail presented for the year 2025-the most recent, complete calendar year's data available. It is provided as a benefit of your membership with the **Ohio Insurance Agents.**

Other informative products are offered by Real Insurance Solutions Consulting, which also may be available to you as members of your association:

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- State-specific ***Line of Business All Insurer Lists*** provide data on all insurers active in a particular state for a Line of Business, or for various other attributes of active insurers.
- State-specific ***P&C Insurer Snapshots*** are available, based on the same data provided in the annual and quarterly summaries, with more in-depth data like market share by Line of Business, and other information. Data is provided both on a national and state-specific basis.
- State-specific ***P&C Line of Business Profitability Summary*** is a new report looking at the profitability of the 25 Lines of Business in a state, over the past 10 years.

All questions and comments, or need for further analysis are welcomed at the contact information below:

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