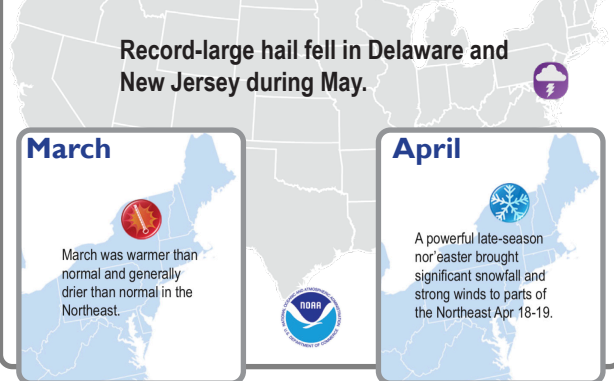




### National Significant Events – March–May 2022

#### Selected U.S. Significant Climate Anomalies and Events for May and Spring



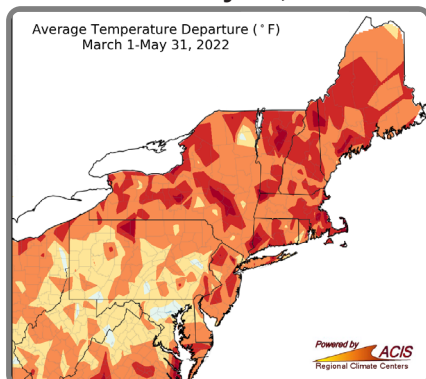
The contiguous U.S. spring average temperature was 52.2°F, 1.3°F above the 20th-century average. Average temperatures for March, April, and May were 2.6°F above average, 0.4°F below average, and 1.7°F above average, respectively. Globally, it was the fifth-warmest March, the fifth-warmest April, the ninth-warmest May, and the sixth-warmest spring. The contiguous U.S. spring precipitation total was 8.07 inches, 0.13 inches above average. March, April, and May precipitation were 0.25 inches below average, 0.06 inches above average, and 0.26 inches above average, respectively.

#### Highlights for the Northeast

- **Spring** was warmer than normal, ranking among the 10 warmest for some sites; however, there were **large temperature swings** each month. A late **March cold spell** caused **80–100% losses** of fruit such as [plums](#) and [apricots](#) in Delaware. On **May 31**, sites such as Newark, NJ, and Islip, NY, had one of their **four hottest May days** with highs in the 90s.
- Spring precipitation varied, with **drought** and abnormal dryness **expanding** in southern and coastal New England but **easing** in southern parts of the Northeast.
- **Spring snowfall** was **below or near normal** for many areas. A storm from **April 18–19** dropped **record snowfall** on Binghamton, NY, and led to **significant power outages**.
- A nor'easter and **prolonged period of onshore winds** in **early May** caused **significant beach erosion** in Delaware and New Jersey. Some [beaches were closed](#) or [had limited access](#) for Memorial Day weekend. The onshore winds also kept coastal areas **cooler than normal**. In fact, Caribou, ME, reached 90°F on May 13, its **second earliest date** and a week earlier than sites such as Washington, D.C., and Philadelphia.
- **Unusually large hail** fell in Delaware and Maryland on **May 16** and New Jersey on **May 20**. A 3-inch hailstone in Calvert County, MD, and 2.5-inch hailstones in Camden and Burlington counties in New Jersey were each **state's largest hailstone for any May** since records [began in 1950](#), while a 2.25-inch hailstone in Sussex County, DE, was the **state's second largest hailstone on record**. The hailstones were **each county's largest on record**, except for Camden County, which was second largest.

### Regional Climate Overview – March–May 2022

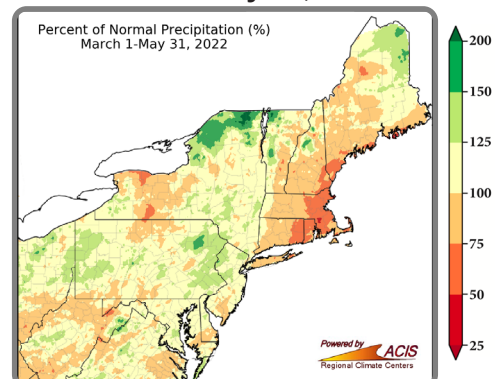
#### Temperature Departure from Normal (°F) March 1–May 31, 2022



Climate normals based on 1991–2020 data; rankings based on 1895–2022.

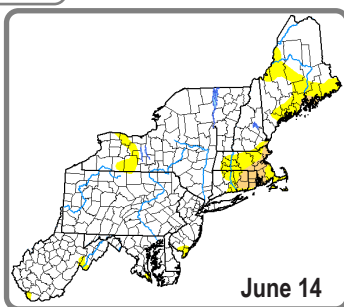
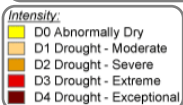
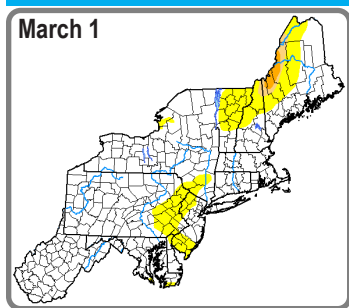
The Northeast had its **16th-warmest spring** at 1.3°F above normal. This spring was among the 20 warmest for 10 states. **March** was 2.4°F above normal, in the **warmest third** of all years. Five states had one of their 20 warmest Marches. **April** was 0.4°F below normal, in the **middle third** of all years. It was the **18th-warmest May** at 1.8°F above normal. This May was among the 20 warmest for seven states.

#### Precipitation Percent of Normal (%) March 1–May 31, 2022



The Northeast saw 99% of normal **spring** precipitation, ranking in the **middle third** of all years. Rhode Island had its 18th-driest spring. **March** precipitation was 83% of normal, in the **driest third** of all years. West Virginia had its 19th-driest March. **April** precipitation was 114% of normal, in the **wettest third** of all years. Two states had one of their 20 wettest Aprils. **May** precipitation was 99% of normal, in the **middle third** of all years. Rhode Island had its 20th-driest May while Maryland had its 17th wettest.

## Regional Climate Overview – March–May 2022



### Drought in the Northeast

As of March 1, the [U.S. Drought Monitor](#) showed 2% of the Northeast in severe/moderate drought and 16% as abnormally dry. During **March**, **drought and dryness contracted** in northern New England due to sufficient precipitation, decent snowpack, and improving streamflow/groundwater levels. However, **moderate drought was introduced** and **abnormal dryness persisted/expanded** in southern parts of the Northeast where short-term precipitation deficits led to declining streamflow, groundwater, and soil moisture. The [April 5](#) U.S. Drought Monitor showed 4% of the Northeast in drought and 29% as abnormally dry. Timely precipitation during the first half of **April alleviated severe drought** in western Maine, **eased moderate drought** in New Jersey, Pennsylvania, and much of Maryland and West Virginia, and allowed **abnormal dryness to contract** across the region. The [May 3](#) U.S. Drought Monitor showed 1% of the Northeast in drought and 18% as abnormally dry. During **May**, increasing precipitation deficits, declining soil moisture, and below-normal streamflow and groundwater levels led to the **introduction/expansion of moderate drought** and **abnormal dryness** in southern and coastal New England and western New York. A few communities implemented or enhanced water restrictions, and there were several wildfires. However, plentiful precipitation in interior New England and southern parts of the Northeast allowed **drought and dryness to contract/ease** and limited wildfires. The [June 14](#) U.S. Drought Monitor showed 2% of the Northeast in drought and 11% as abnormally dry. For current conditions, see the [Northeast DEWS Dashboard](#).

## Regional Impacts and Updates – March–May 2022

### Spring Snowfall

**March snowfall** was **below normal** for much of the Northeast, with the largest deficits of over 6 inches generally in New England. However, parts of West Virginia, Pennsylvania, and New York had a snowfall surplus due mostly to a storm on March 12.

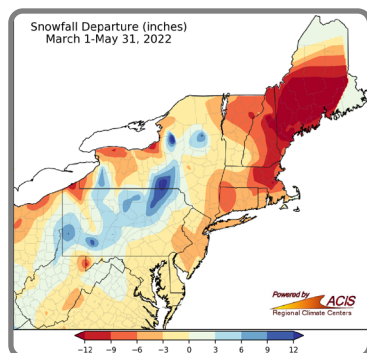
- **March 12:** Areas including western West Virginia, southwestern Pennsylvania, and central New York saw **8–12 inches of snow**, with locally higher amounts of up to 20 inches in northern Vermont. Binghamton, NY, and Pittsburgh, PA, had one of their **10 snowiest March days** with 10.6 inches of snow and 8.0 inches, respectively. Wind gusts of up to 64 mph accompanied the storm. The snow, which fell at a rate of up to 2 inches per hour, and gusty winds led to difficult travel and multiple accidents including a pileup [involving 73 vehicles](#) in central Pennsylvania.

**April snowfall varied**, ranging from more than 6 inches below normal in western Maine to more than 6 inches above normal in parts of Pennsylvania and New York. Similar to March, the snowfall surplus was mostly the result of a mid-month storm on April 18 and 19.

- **April 18 to 19:** A **late-season nor'easter** produced record snowfall, heavy rain, and strong wind gusts. Parts of central/northern New York and northeastern Pennsylvania saw **12–18 inches of snow**, with intense snowfall rates of up to 3 inches per hour and lightning. Binghamton, NY, had its **greatest two-day snowfall for April** with 14.6 inches. With 11.4 inches of that snow on April 19, Binghamton also had its third snowiest April day and its latest occurrence of a daily snowfall of at least 11 inches. The **heavy, wet snow** and strong winds downed trees and wires, blocking roads and **knocking out power**. [Around 300,000 customers](#) lost power in the Northeast, with nearly 200,000 of those in New York. [Nearly half](#) of all (New York State Electric and Gas) customers



April 18–19 snowfall in Binghamton, NY. Photo credit: NWS Binghamton



in Broome County, where Binghamton is located, lost power, some for multiple days. Coastal areas primarily saw **rain**, with the greatest totals ranging from 2 to 4 inches. Minor river and street flooding occurred due to the heavy rain, while moderate coastal flooding inundated some roads.

**Spring snowfall** (map left) from more than 12 inches below normal in parts of Maine and New Hampshire to more than 12 inches above normal in south-central New York, with many areas seeing **below** or **near-normal** snowfall. **October–May snowfall** was **below** or **near normal** for most areas but ranged from more than 36 inches below normal in areas such as coastal Maine, northern/central New York, and eastern West Virginia to 24 inches above normal in spots such as southeastern New Jersey. Two major snowstorms in January, one on January 3 and [one on January 29](#), were the drivers of southeastern New Jersey's snowier-than-normal season.

## Regional Impacts and Updates – March–May 2022



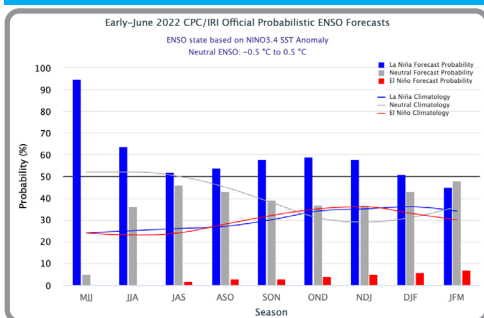
Damage from an EF-1 tornado in Lancaster County, PA, on May 27. Photo credit: NWS State College

### Spring Severe Weather

There were a few rounds of severe weather during spring. From **March 6–7**, wind gusts of 50–70 mph, with [higher gusts in New Jersey](#), downed trees, damaged buildings, caused [power outages](#), and resulted in a fatality. **Three tornadoes**, an EF-2 and two [EF-1s](#), touched down in **Pennsylvania on March 31**. [The tornadoes](#) snapped/uprooted hundreds of trees, destroyed barns, and damaged roofs. From **May 6–7**, a storm dropped 3–5 inches of rain on parts of Maryland, West Virginia, and Pennsylvania, with Harrisburg, PA, having its **second wettest May day** with 2.17 inches of rain. **Flash flooding** led to road closures, water rescues, and [a few mudslides](#). Portions of West Virginia were [hit particularly hard](#), with water inundating buildings and a fatality. A **widespread severe weather event** occurred on **May 16**, with multiple reports of **straight line wind damage across the region**. An **EF-1 tornado** in western New Hampshire snapped/uprooted around 1,000 trees. **Record-setting large hail**, the size of limes

and baseballs (2–3 in.), [damaged homes](#) and dented cars in parts of Delaware and Maryland. Severe weather in New Jersey on **May 20** produced an **EF-0 tornado** in Monmouth County and **record-setting large hail**, the size of tennis balls, in Camden and Burlington counties. On **May 27**, **five tornadoes** touched down in the region: an EF-1 and two EF-0s in Pennsylvania and an EF-1 and an EF-0 in Maryland. The tornadoes destroyed several large barns and sheds, downed trees, and left [three people injured](#).

## Regional Outlook – Summer 2022



### ENSO

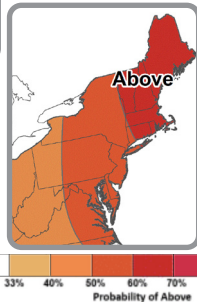
During May, **La Niña conditions continued** in the equatorial Pacific Ocean. NOAA's [Climate Prediction Center indicates](#) there is a 52% chance **La Niña will continue** through **summer** and a 58% to 59% chance of La Niña conditions during fall/early winter. This could be the **third year in a row** with La Niña, which has happened [only two other times](#) since 1950.

### Atlantic Hurricane Season

	2022 Atlantic Season Outlook	1991-2020 Average Season
Number of Named Storms	14-21	14
Number of Hurricanes	6-10	7
Number of Major Hurricanes	3-6	3

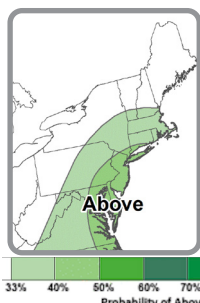
In mid-May, NOAA released the [2022 Atlantic hurricane season outlook](#) which indicates an **above-average season** is most likely, with “a likely range of 14–21 named storms, of which 6–10 could become hurricanes, including 3–6 major hurricanes.” An above-average season is favored due to several factors including current La Niña conditions and warmer-than-average sea surface temperatures. This would be the seventh consecutive above-average season. The season runs from June 1–November 30, peaking from mid-August to late October. The first named storm of the season, Tropical Storm Alex, formed on June 5. NOAA Eastern Region Climate Services [webinar in August 2022](#) will focus on the updated hurricane outlook.

### Temperature and Precipitation



Normal July–September average temperatures range from the low 60s in northern New England and northern New York to the mid 70s in some coastal areas. [NOAA's Climate Prediction Center \(CPC\)](#)

favors **above-normal temperatures** for **July–September** for the Northeast (map above), driven by long-term climate trends. Normal July–September precipitation ranges from less than 10 inches in western New York to more than 15 inches in eastern New York, eastern Pennsylvania, and central West Virginia. **Above-normal precipitation** is favored for much of the Northeast for **July–September**, [potentially easing drought](#) in New England. **Equal chances** of below-, near-, or above-normal precipitation were forecast for interior and northern parts of the region (map right).



### Northeast Partners

[National Oceanic and Atmospheric Administration](#) offices including:

[NESDIS/National Centers for Environmental Information](#)

[NWS, Eastern Region](#)

[NWS, Climate Prediction Center](#)

[NWS, National Operational Hydrologic Remote Sensing Center](#)

[NMFS, Fisheries Science Centers and Regional Office, Atlantic](#)

[NOS, Office for Coastal Management](#)

[NOS, National Centers for Coastal Ocean Science](#)

[OAR, Climate Program Office and Geophysical Fluid Dynamics Lab](#)

[OAR, National Sea Grant Office](#)

[NOAA's North Atlantic and Great Lakes Regional Collaboration Teams](#)

And the following other offices:

[Northeast Regional Climate Center](#)

[National Integrated Drought Information System Consortium of Climate Risk in the Urban Northeast](#)

[Cooperative Institute for the North Atlantic Research](#)

[Northeast Region State Climatologists](#)

[Mid-Atlantic RISA](#)