

# **BROWNING** WORLD CLIMATE BULLETIN

*James J. Garriss III*

## North America January Outlook

Dry cold conditions will encompass the north and east, while temperatures warm up slightly in the south

It was a rough Christmas for millions around North America. Despite the festivities of the holiday season, a major winter storm enveloped most of the US. Unofficially named Winter Storm Elliott, it was originally believed to be a bomb-cyclone. A bomb cyclone (also known as explosive cyclogenesis, a weather bomb, meteorological bomb,[ explosive development, or bombogenesis) is the rapid deepening of an extratropical cyclonic low-pressure area. In layman's terms, it's when a cold northern front begins to spin and drop in pressure.

The affects of Elliott were similar to a bomb cyclone, but it did not have the spin needed to make it an official bombogenesis event. Instead, it was simply a severe winter storm, considered a once in a generation event by some.

### In This Issue

Storms will continue in parts of North America in early January while other regions merely stay cold.

April showers will come in the form of snow for much of Canada this spring.

La Nina will either decrease or come to an end in spring increasing temperatures and precipitation.

Outlets warned of the impact of the storm by the 20th with the press and elected leaders seeking emergency aid and advising caution. Energy outlets warned Texans to wrap their pipes to avoid the swath of burst pipes that occurred only a couple years ago. The country in general began to prepare, but it was unfortunately the holidays, so many travelled despite the risk.

Ice storm, blizzard, flooding, freezes, high surf, hazardous seas, and coastal floods were all threats for 45 of the lower 48 states. When the storm finally took hold on December 22nd, hit and maintained its peak from the 23rd through the 24th and continued into Christmas. Flights were cancelled, travelers were abandoned, roads were closed, power outages swept through dozens of states, and the US declared a power emergency.

INSERT: December 20th through the end (If you can grab them). [https://upload.wikimedia.org/wikipedia/commons/a/ae/Animation\\_of\\_December\\_2022\\_North\\_American\\_winter\\_storm\\_-\\_High\\_Temperature.gif](https://upload.wikimedia.org/wikipedia/commons/a/ae/Animation_of_December_2022_North_American_winter_storm_-_High_Temperature.gif)

If you can't then this image [https://upload.wikimedia.org/wikipedia/commons/2/27/Late\\_December\\_winter\\_storm\\_2022-12-23\\_1720Z.jpg](https://upload.wikimedia.org/wikipedia/commons/2/27/Late_December_winter_storm_2022-12-23_1720Z.jpg)

WRITE: Starting to take hold on the 20th, the holiday storm was considered one of the

Snowfall will be normal and may even occur in the southern states.

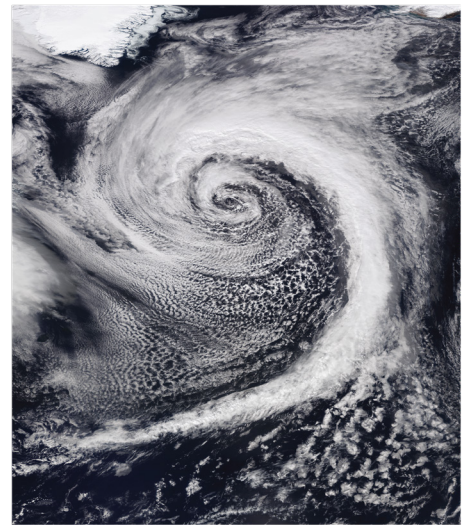


fig. 1 The extratropical bomb cyclones slow rotation allows for storm to grow and move more freely while keeping other pressure systems from weakening it. [https://upload.wikimedia.org/wikipedia/commons/b/b3/Extratropical\\_Cyclone\\_over\\_North\\_Atlantic\\_2022-03-20.jpg](https://upload.wikimedia.org/wikipedia/commons/b/b3/Extratropical_Cyclone_over_North_Atlantic_2022-03-20.jpg)

### Contents

#### 1 North America January Outlook

– Starting the year after a major December storm, the cold temperatures will stay as precipitation decreases.

#### 3 North America Spring Outlook: Canada

– Northern Canada will be hot and dry or cold and wet throughout spring. These conditions will create more chaotic weather patterns for the rest of the country.

#### 4 North America Spring Outlook: US

– A long winter and short spring will encompass the north while the west gets some much-needed precipitation relief.