

Global Disastrous Weather Report in November 2022

Abstract: In November 2022, there was a cold air in Central Asia, East Asia, North America and other places in the Northern Hemisphere. The minimum temperature in many places was lower than that in the same period of the year, and some areas had heavy rain and snow. The accumulative precipitation was 1~2 times more than the same period of the year in western and southern Europe, southern India, Southeast Asia, eastern North America, northern and eastern Australia, southern Africa and other places. A total of 6 tropical cyclones were generated, and the number was less than the same period of the year, but their intensity was high and caused serious disasters.

1. Overview of global weather

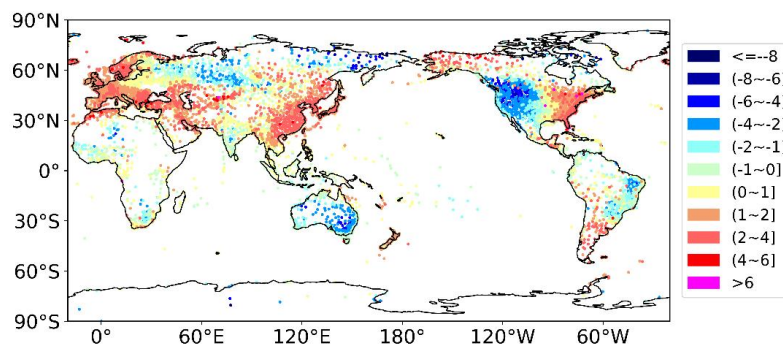


Fig.1 Monthly 2m temperature anomaly in November 2022 (unit: $^{\circ}\text{C}$)

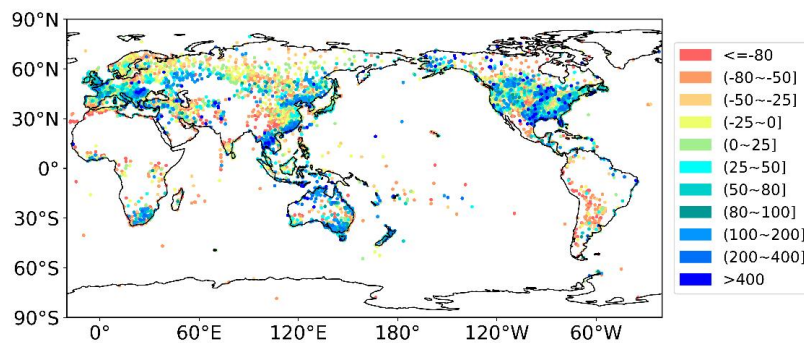


Fig.2 Monthly total accumulated precipitation percentage anomaly in November 2022(unit:%)

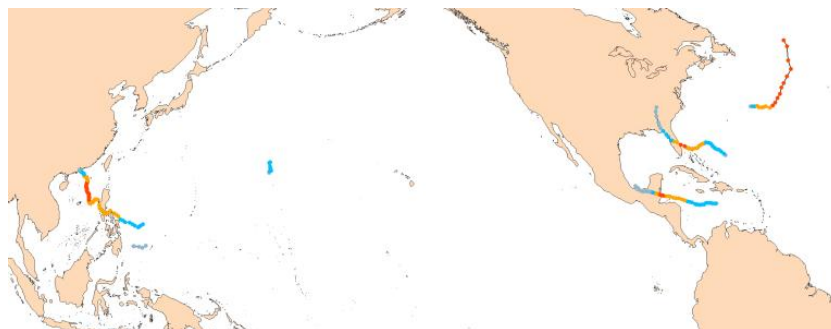


Fig.3 Global tropical cyclones in November 2022

In November 2022, severe weather around the world mainly included heavy

precipitation, cold air, heavy snow, and heat wave. Saudi Arabia, South Africa and the western United States experienced continuous heavy rainfall, causing floods, landslides and other secondary disasters in some areas. The minimum temperature was lower than that in the same period of the year in Central Asia, East Asia and North America had heavy rain and snow. Tropical Storm “Nicole” has brought high winds and heavy rain to the U.S. state of Florida. In addition, a prolonged heat wave has hit Northern Australia. In November, there were 6 tropical cyclones were generated in the world, and the number of them was less than normal, namely "Nalgae", "Banyan", "Yamaneko" in the Northwest Pacific Ocean, "Lisa", "Martin", "Nicole" in the North Atlantic.

2. Severe weather

Snowfall occurred in the northeastern part of the United States from November 16. It is reported that heavy snowstorm weather in New York State from 17 to 21, with the accumulative precipitation more than 30 mm.

From November 25 to 30, under the influence of the cold air, southern Siberia, Central Asia and East Asia had experienced strong winds and cooling weather, with the temperature dropping 10-16°C in most areas. Meanwhile, 51 meteorological stations in Mongolia had broken the record of the lowest temperature for the same period in recent 47 years.

Tropical Storm “Nicole” had brought continuous rain to the southeastern United States, and caused secondary disasters such as flooding and tornadoes.

3. Outlook

It is predicted that in the next two weeks, the cold air will continue to affect Eurasia. The temperature in Western Europe, Siberia, Far East and East Asia will be 2-3 °C lower than the same period of the year, while the temperature in northern Africa and southern Europe will be 1-2 °C higher. The regions with more precipitation are mainly located in southern and eastern Europe, southern Siberia, southern Far East, southern Indian Peninsula, East Asia, North Central North America, northern South America, southeast and northern Australia and South Central Africa, among which south Europe and East Europe, Japan, the southern part of Canada, the northern United States and the Great Lakes region will have obvious snow weather, Most areas will have moderate to heavy snow, localized blizzard or major blizzard. In addition, we still need to pay attention to the generation and development of typhoons in the southern Indian Ocean and other areas.

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