Global Disastrous Weather Report in February 2024

Abstract: In February 2024, temperatures in eastern Central Asia, southern Central Siberia, most of Mongolia, and other regions were abnormally low, with some areas experiencing record-breaking minimum temperatures for this time of year. Meanwhile, temperatures in central and western Europe, and central and eastern North America were significantly higher than the same period in previous years. Precipitation was above average in parts of central and western Europe, northern Central Asia, most of East Asia, and western United States. Globally, there were five tropical cyclones, a number close to the historical average for this period.

I. Global Weather Overview

Temperature

In February 2024, average temperatures were 2-5°C higher than usual in central and western Europe, central and eastern North America, southern South America, western Australia, and northwestern and southern Africa. In some areas, such as central and southern Europe, central United States, and southeastern Canada, temperatures were 6-8°C higher. Conversely, average temperatures were 2-4°C lower than usual in most of Central and East Asia, southern and central Siberia, and the Far East. In specific regions, including eastern Central Asia, southern Central Siberia, most of Mongolia, and eastern Far East, temperatures were 5-10°C lower. Some locations in these areas recorded their lowest February temperatures in history (Figure 1).

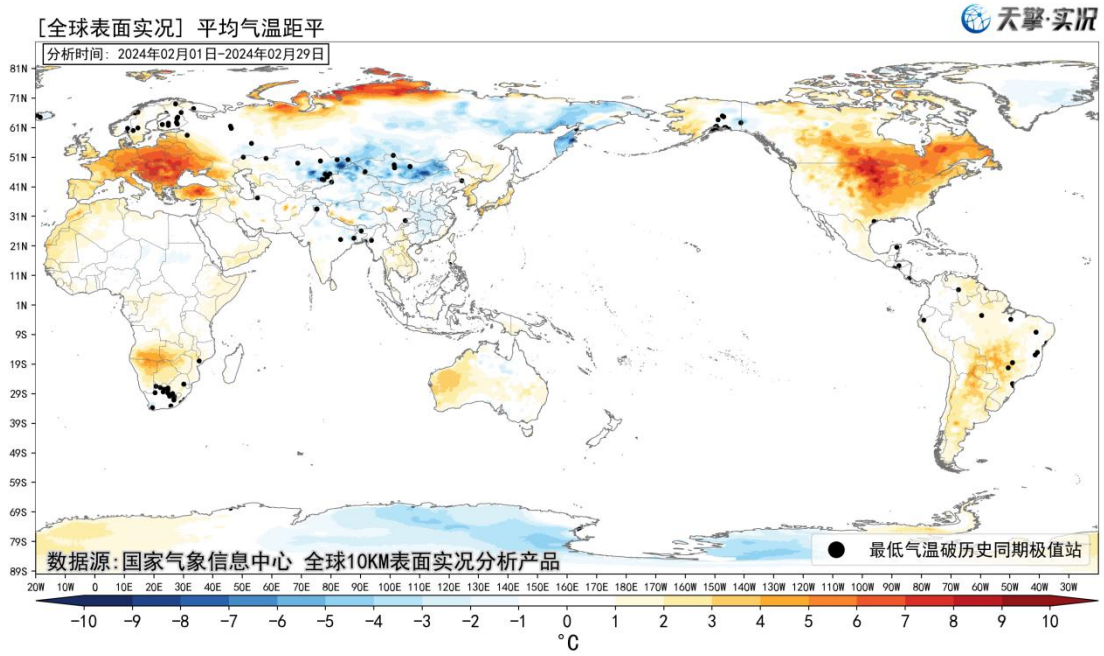

Figure 1: Global Minimum Temperature Distribution in February 2024 (Unit: °C) and Distribution of Stations Breaking Historical Records for the Same Period (Black Circles)

Precipitation

In February 2024, total precipitation was 100-250 mm in central and western Europe, southeastern Central Asia, eastern East Asia, Southeast Asia, coastal western and southeastern North America, northern South America, northern Australia, and northern regions of southern Africa and Madagascar. In some areas, precipitation exceeded 350 mm (Figure 2). Precipitation was 50% to 100% higher than usual in parts of central and western Europe, northern Central Asia, most of East Asia, western United States, eastern South America, northern Australia, and Madagascar, with some regions experiencing more than twice the usual amount. Conversely, precipitation was 50-90% lower than usual in South Asia, the Indochinese Peninsula, central and eastern United States, western and central South America, central and western Australia, and southern Africa (Figure 3).

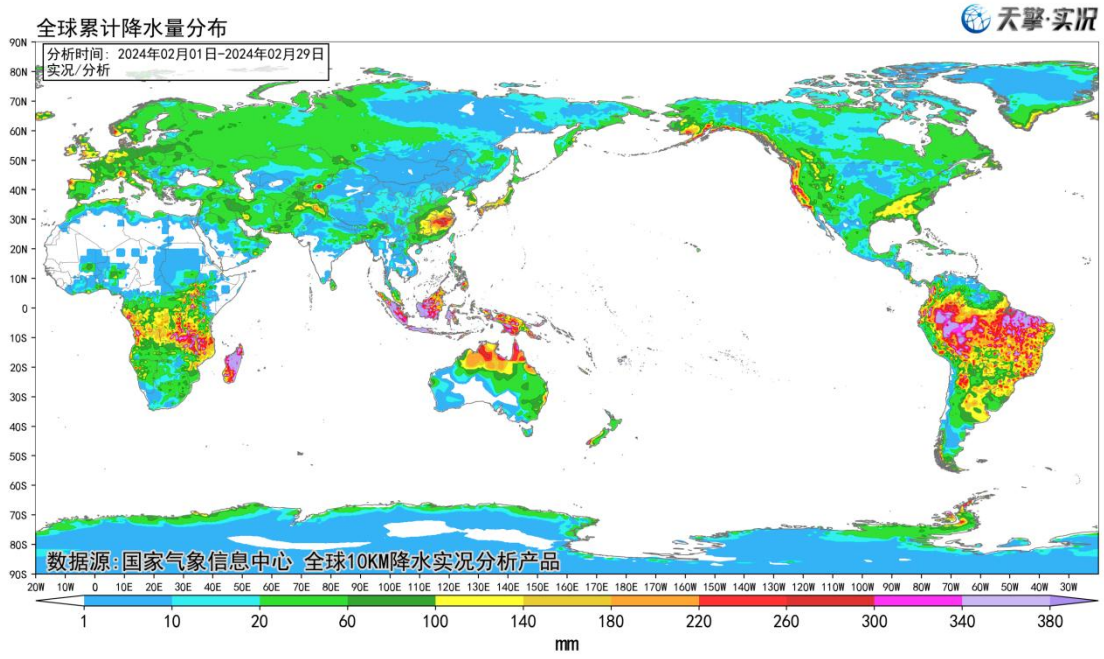

Figure 2: Global Cumulative Precipitation in February 2024 (Unit: mm)

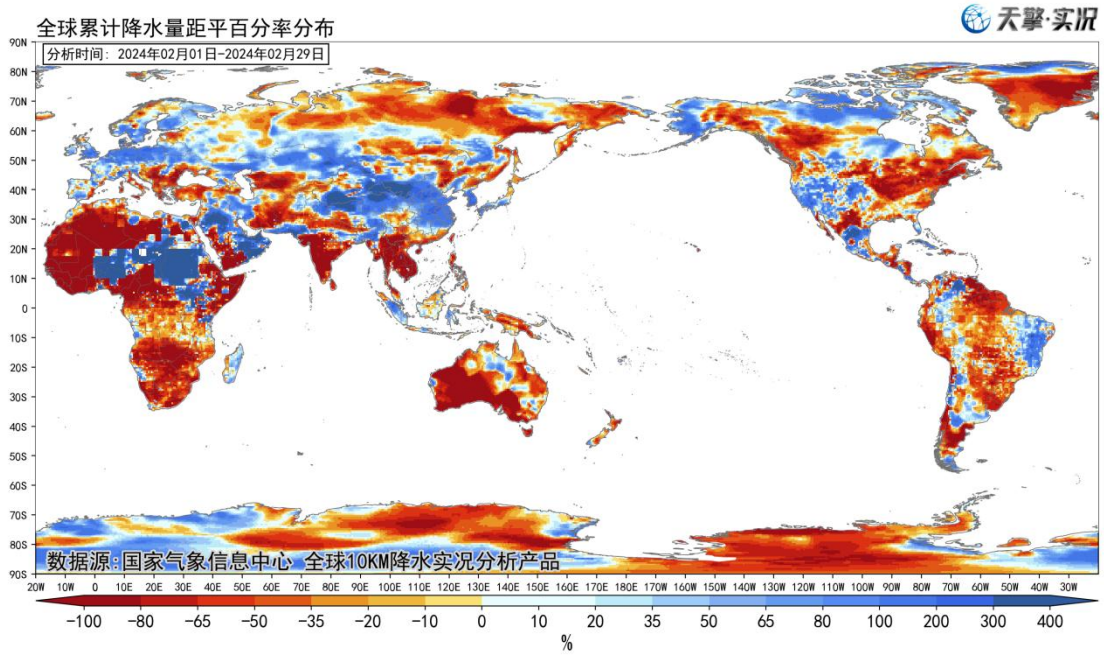

Figure 3: Global Cumulative Precipitation Anomaly Percentage in February 2024

(Unit: %)