WORLD
METEOROLOGICAL
ORGANIZATION

GLOBAL SEASONAL CLIMATE UPDATE

TARGET SEASON: May-June-July 2022

Issued: 26 April 2022

Summary

During January-March 2022, all four Pacific Niño sea-surface temperature (SST) indices in the central and eastern Pacific were below-normal. The observed SST conditions in the equatorial Pacific were characterized by a weak La Niña state. The Indian Ocean Dipole (IOD) over the observed period was weakly negative. The North Tropical Atlantic (NTA) and the South Tropical Atlantic (STA) SST indices were weakly positive.

For the May-July 2022 season, below-normal SST anomalies in the Niño 3.4 and Niño 3 regions with values approximately -0.5° C (Niño 3.4) and -0.5° C (Niño 3) are predicted indicating a tendency for weak La Niña conditions to continue. Starting from a weakly negative value, the Indian Ocean Dipole index is predicted to become more negative. SSTs over most of the equatorial western Pacific, Indian, and Atlantic Oceans are expected to be near or above-normal. SSTs between about 30° N and 60° N in the Pacific and Atlantic Oceans are expected to be above-normal.

Although weak La Niña conditions are predicted in the equatorial central and eastern Pacific, a forecast for widespread likelihood for warmer-than-average SSTs elsewhere dominates the forecast of air temperatures for May-July 2022. A likelihood for positive temperature anomalies is expected over most of the land areas in the Northern Hemisphere, with the exceptions being the Indian subcontinent, north-western North America, and north-western South America. The largest probability for above-normal land air-temperature anomalies is expected over the far northern and eastern parts of Asia, the Arabian Peninsula and central Asia, and central parts of North America, where the models are very consistent in predicting likelihood for an anomalously warm May-July 2022. Models have a moderate consistency in predicting higher probabilities for below-normal temperatures over the Indian subcontinent. In near-equatorial latitudes and the Southern Hemisphere, the likelihood for positive temperature anomalies is predicted with high consistency over a large area from the Maritime subcontinent extending into the South Pacific and over New Zealand. Likelihood for near-normal temperatures is enhanced for most of South America north of about 30° S. Other areas with high consistency in the likelihood of predictions of below-normal temperatures are the central and eastern tropical Pacific, reflecting the presence of below-average SST conditions. Over much of Australia, the predicted signal is not well defined. Over the southern regions of South America there is weak likelihood for temperature to be above-normal, however, model consistency is low.

Because of below-average SST conditions associated with a weak La Niña that are predicted for May-July 2022, together with an enhanced east-west SST gradient in the equatorial Pacific, some of the predicted rainfall patterns are similar to canonical rainfall impacts of La Niña. There are increased chances of unusually dry conditions along the equator centred near the dateline and extending towards the southern parts of South America. Anomalously wet conditions are predicted in much of the Maritime subcontinent extending into the south-west Pacific and north central Pacific. The areas of increased probability for unusually wet conditions extend over much of Australia. The other areas of likelihood for an increase in rainfall are the north-eastern and the far north-western part of South America, the Indian subcontinent, and eastern Asia. There is also a weak likelihood for wet conditions over part of north-western North America. There is moderate likelihood for below-normal rainfall across the central and southern part of North America, part of South America south of 20° S, the western regions of Asia, western and eastern parts of equatorial Africa, between 30°-50° N across the Europe, the central western Indian Ocean, and the Caribbean. Over much of the rest of Africa, there is little consistency in predicted rainfall.

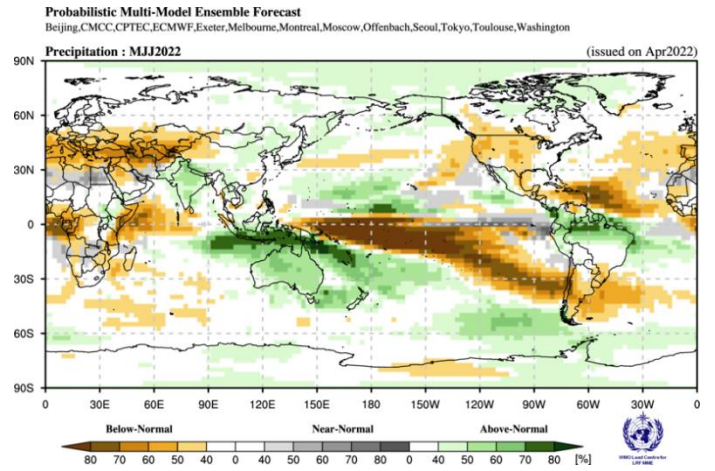## Surface Air Temperature, MJJ 2022
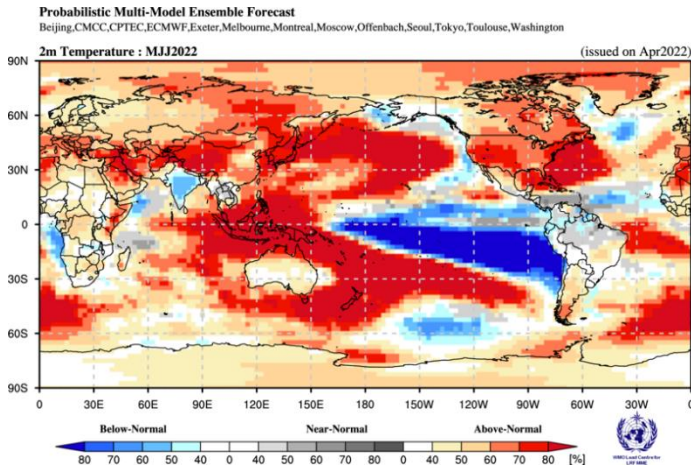
Precipitation, MJJ 2022

Figure 1. Probabilistic forecasts of surface air temperature and precipitation for the season May-July 2022. The tercile category with the highest forecast probability is indicated by shaded areas. The most likely category for below-normal, above-normal and near-normal is depicted in blue, red and grey shadings respectively for temperature, and orange, green and grey shadings respectively for precipitation. White areas indicate equal chances for all categories in both cases. The baseline period is 1993–2009.
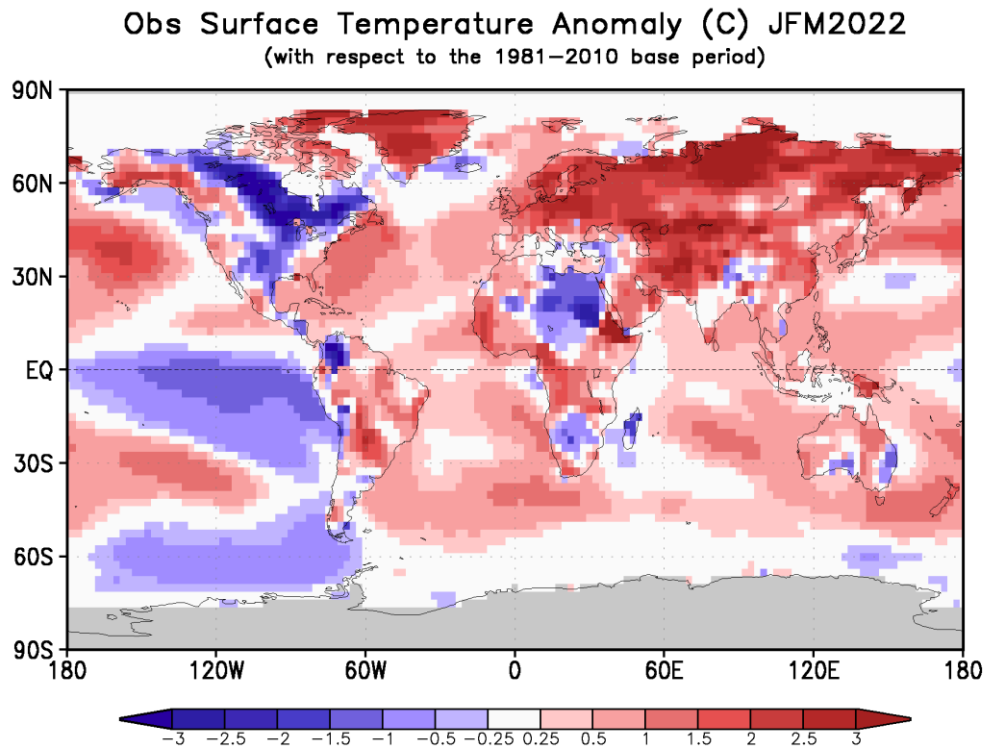
Figure 2. Observed January-March 2022 near-surface temperature anomalies relative to 1981–2010. (*Source:* U.S. Climate Prediction Center).

Obs Precipitation Anomaly (mm/day) JFM2022
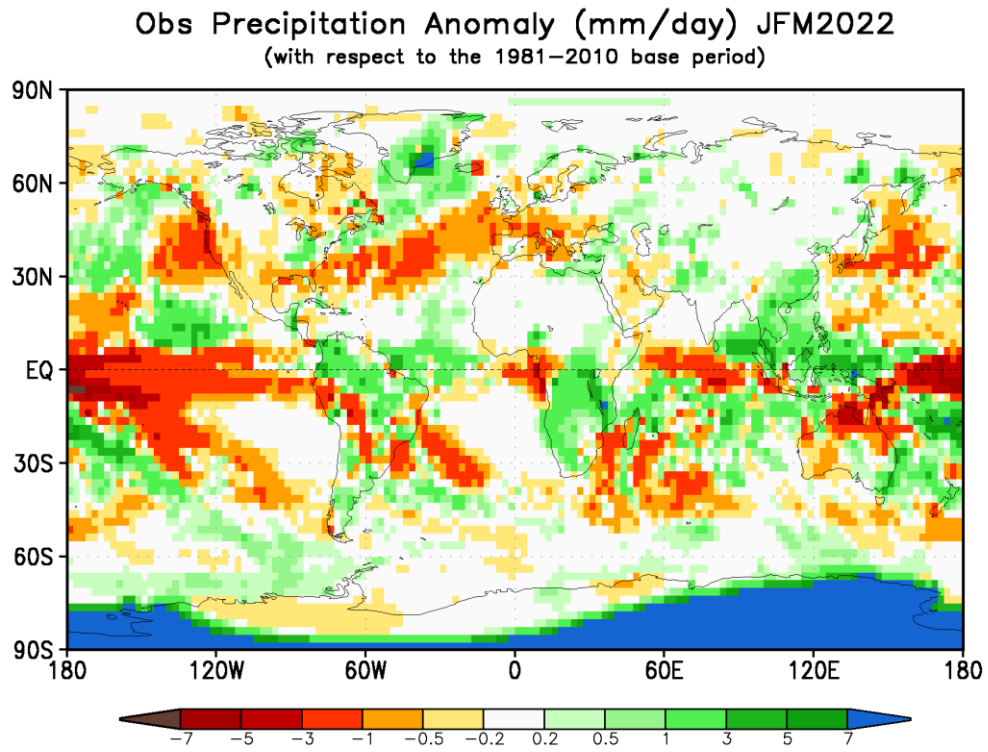### (with respect to the 1981–2010 base period)

Figure 3. Observed January-March 2022 precipitation anomalies relative to 1981–2010 base period (top). (*Source:* U.S. Climate Prediction Center).