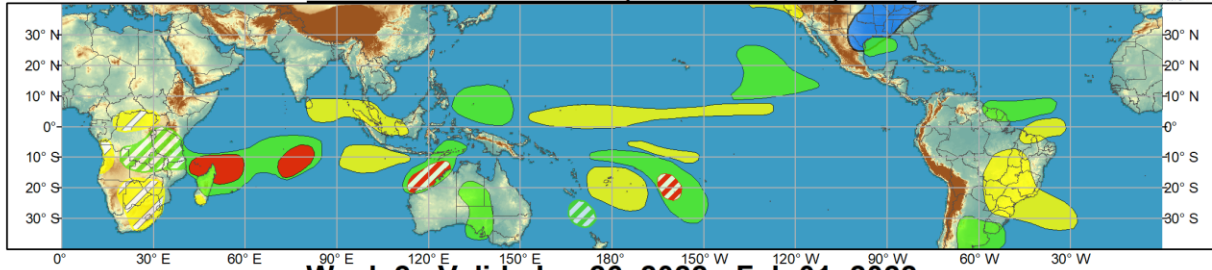




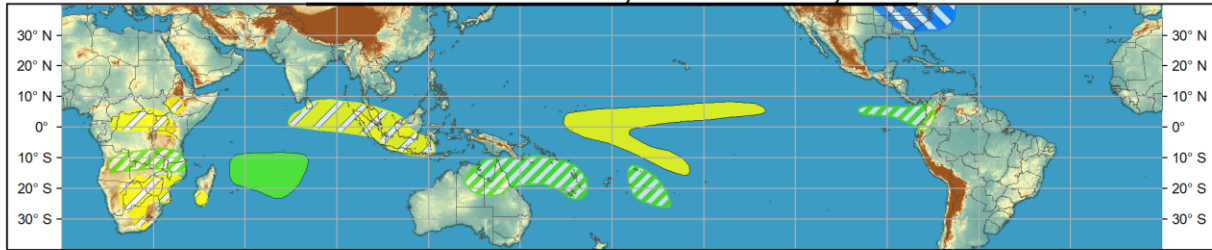
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jan 19, 2022 - Jan 25, 2022



Week 2 - Valid: Jan 26, 2022 - Feb 01, 2022



Confidence
High Moderate

Tropical Cyclone Formation

Above-average rainfall

Below-average rainfall

Above-normal temperatures

Below-normal temperatures

Development of a tropical cyclone (tropical depression - TD, or greater strength).

Weekly total rainfall in the upper third of the historical range.

Weekly total rainfall in the lower third of the historical range.

7-day mean temperatures in the upper third of the historical range.

7-day mean temperatures in the lower third of the historical range.

Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Produced: 01/18/2022

Forecaster: Novella



Following a period of renewed eastward propagation of the Madden Julian Oscillation (MJO) earlier in January, the RMM index indicates the MJO has lost much of its amplitude, falling within the unit circle over the Western Hemisphere during the past week. Combined upper-level velocity potential anomaly and satellite based infra-red data analyses continue to reflect an incoherent spatial pattern with multiple centers of convective action tied to ongoing Kelvin and Rossby wave activity across the Indian and Pacific ocean basins. Looking ahead, dynamical models favor the continuation of a weak and disorganized MJO with several RMM forecasts favoring the intraseasonal signal to generally remain within the unit circle during the next two weeks. A few forecasts depict more of a reemerging signal over the western Pacific later in week-1, however this is likely due to stronger influences of interfering Rossby Wave activity in the guidance. As a result, the MJO is not expected to be a significant factor in the outlook as other modes of tropical variability are more likely to be predominant drivers of tropical precipitation and tropical cyclone (TC) formation during the next two weeks.

No TCs formed during the last week. For week-1, guidance shows an increasingly favorable environment for TC formation in the southern Indian Ocean with reduced shearing conditions and well above-normal sea surface temperatures. Given good run-to-run continuity and agreement among the GEFS and

ECMWF ensemble and deterministic solutions, a high confidence area is highlighted from the Mozambique Channel to the east of Madagascar, with another high confidence area posted to the south of the Maldives (near 10S/75E) for week-1. Farther east, probabilistic TC tools also indicate increased chances for TC development across the Timor Sea where ECMWF solutions continue to show closed low formation late in week-1. Despite some disagreements in the guidance in regards to the exact location of tropical cyclogenesis, a broad moderate confidence area is posted to the north of western Australia. During the latter period, there are reduced chances for additional TC formation in the southern Indian Ocean and no TC areas are posted.

Across the South Pacific, the Joint Typhoon Warning Center is currently monitoring an area of disturbed conditions near Niue with a low chance of formation. As this low is favored to track westward and weaken in the near term, models show the deepening of another low near the Cook Islands later this week, and a moderate confidence area is posted over the region. This potential system is not anticipated to pose any adverse impacts to areas affected by the volcanic eruption near Tonga, as the latest guidance continues to show this low briefly tracking westward before shifting southward and becoming absorbed in the mid-latitude westerlies later this week. In the northwestern Pacific, both the GEFS and ECMWF ensembles favor an area of strengthening low pressure in the Philippine Sea tied to Rossby wave activity late in week-1. However, given less support in the probabilistic tools and a less favorable climatology for TC formation during this time of the year in the basin, a corresponding TC area is left off the outlook map. For week-2, additional TC formation is possible in the Coral Sea, however there is only modest support for this realization in the guidance resulting in no TC shapes being posted for the period.

The precipitation outlook is based on dynamical model consensus, anticipated TC tracks, the ongoing response to La Nina, and Rossby wave activity. Above-normal precipitation is favored to continue through many parts of Australia during the next two weeks. Conversely, a broad area of suppressed precipitation remains favored over south-central Brazil where antecedent precipitation has been well below average resulting in poor vegetation health over southern Brazil and neighboring portions of Paraguay. Anomalous mid-level troughing forecast over eastern North America is expected to bring periods of below-normal temperatures for much eastern half of the contiguous U.S. during the next two weeks. For hazardous weather conditions during the next two weeks across the U.S., please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 Hazards Outlook. Forecasts over Africa are made in consultation with the International Desk at CPC and can represent local-scale conditions in addition to global scale variability.