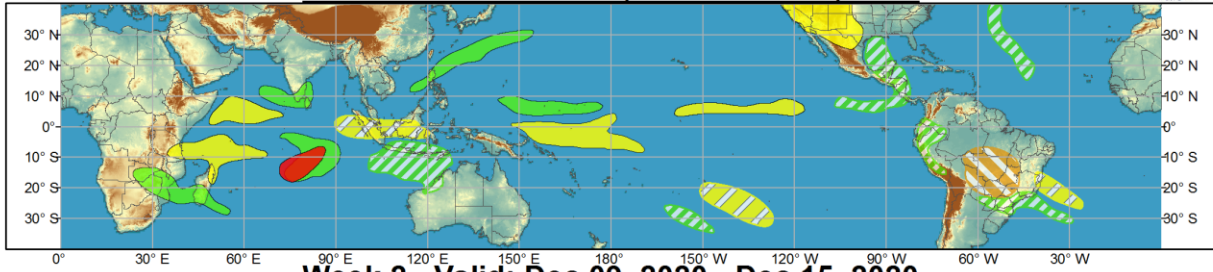




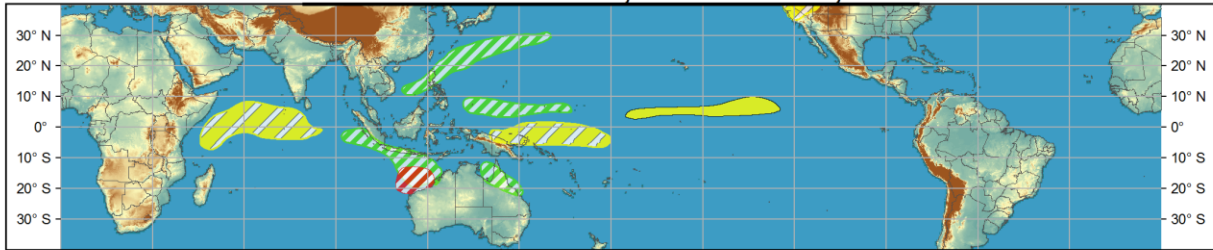
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 02, 2020 - Dec 08, 2020



Week 2 - Valid: Dec 09, 2020 - Dec 15, 2020



Confidence
High Moderate

- Tropical Cyclone Formation** ■ ▨ Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall** ■ ▨ Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall** ■ ▨ Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures** ■ ▨ 7-day mean temperatures in the upper third of the historical range.
- Below-normal temperatures** ■ ▨ 7-day mean temperatures in the lower third of the historical range.

Produced: 12/01/2020

Forecaster: Harnos

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.



The Madden-Julian Oscillation (MJO) is currently situated over the western Maritime Continent, while the ongoing La Nina event remains in place. Should the MJO remain prominent, it is likely to destructively interfere with the low frequency state when reaching the West Pacific. In addition to these two large-scale features, several other canonical modes of tropical variability are apparent over the Eastern Hemisphere. An atmospheric Kelvin wave is currently approaching the active MJO from the west, likely to result in constructive interference in the short-term. To the west of the Kelvin wave and MJO envelopes, a pair of equatorial Rossby waves are analyzed off the equator over both hemispheres of the Indian Ocean. The Northern Hemisphere circulation is associated with Tropical Cyclone (TC) Buravi, currently situated just east of Sri Lanka, while the Southern Hemisphere circulation is also being monitored for TC development. The confluence of these modes results in a murky perspective regarding how the tropical circulation is likely to evolve during the first half of December. Dynamical model forecasts tend to emphasize different modes of variability to varying degrees among the ensemble suites, and even ensemble members. In general, the MJO being in Phases 4/5 (over the Maritime Continent) is anticipated during Week-1 in addition to a mix of Phases 5/6 (eastern Maritime Continent and West Pacific) during Week-2, which would introduce destructive interference with La Nina during the latter period.

Over the past week the only TC to form was the aforementioned Buravi which developed on the 1st of December just east of Sri Lanka. The Joint Typhoon Warning Center (JTWC) forecasts this system to strike northern Sri Lanka on the 2nd, before passing over the Gulf of Mannar and near the southern tip of India during the remainder of the week. JTWC is also monitoring a disturbance over the southern Indian Ocean, giving it a low chance of forming during the next 24 hours. Dynamical model guidance is consistent on showing this system tracking southwest and intensifying later this week, resulting in high confidence for TC formation during Week-1. A circulation over the Philippines is also being tracked by JTWC, with a low chance of forming a TC during the next 24 hrs. Guidance shows this circulation drifting southwestward with time and little to no intensification, resulting in no associated tropical cyclogenesis area during Week-1. Yesterday marked the end of the Atlantic hurricane season, and the National Hurricane Center is currently monitoring a disturbance northeast of the Azores with a less than 10% chance of becoming a subtropical cyclone during the next 5 days. Week-2 TC chances appear limited outside of moderate confidence for a TC developing off the Kimberley Coast of Australia.

Precipitation outlooks during Week-1 closely align with forecast TC tracks and large-scale variability (i.e. the MJO and La Nina). Remaining precipitation forecasts during Week-1 are based on consensus among the CFS, ECMWF, and GEFS ensembles. Moderate confidence exists for above-normal temperatures across central South America during Week-1, tied to forecast anomalies of +10 to +12 degrees C during the period, corresponding with temperatures of 35 to 45 degrees C. A temperature hazard was also considered focused on Queensland during Week-1, but left off the outlook given conditions likely moderating by late in Week-1. Interested parties regarding Australia are referred to the Bureau of Meteorology's heat wave outlook for more information. The Week-2 precipitation outlook is more limited in confidence and coverage, given increased chances of the MJO and La Nina destructively interfering with one another. As with Week-1, dynamical model consensus is used to complete the remainder of the Week-2 precipitation outlook, despite a lack of obvious linkages to canonical tropical modes.

For hazardous weather concerns over the U.S. during the next two weeks, please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 U.S. 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.