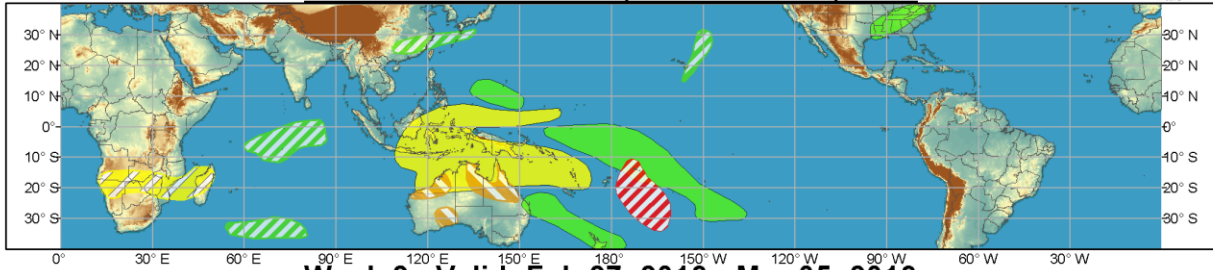




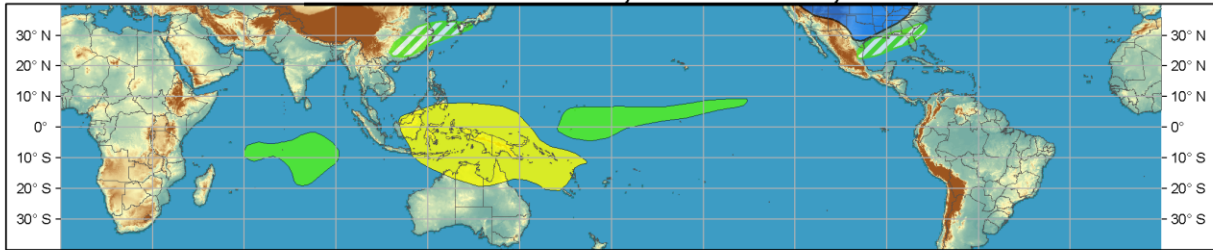
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Feb 20, 2019 - Feb 26, 2019



Week 2 - Valid: Feb 27, 2019 - Mar 05, 2019



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.

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: 02/19/2019
Forecaster: D.Harnos



An El Niño advisory was issued on 14 February, denoting the long-awaited arrival of El Niño and observations of a coupled atmospheric response to the anomalously warm sea-surface temperatures (SSTs) in the Central Pacific. Although a relatively weak, short-lived event is anticipated, there may be some limited influences on the global climate through the remainder of boreal winter and the transition to spring. This low-frequency convection has recently been constructively interfering with the active phase of the Madden-Julian Oscillation (MJO) and equatorial Rossby wave activity, driving robust anomalous convection in the Central Pacific. This feature has seen some teleconnectivity to the extratropics in both hemispheres, and appears at least partially responsible for the multiple atmospheric rivers observed across California last week which brought several feet of fresh snow to the Sierras. The MJO shows some signs of shifting east of the Central Pacific in recent days, with suppressed convection sliding eastward toward the Date Line. During Week-1, RMM Phases 8/1 are anticipated, with Phases 1/2 during Week-2. Ensemble guidance that is coupled with the ocean (e.g. ECMWF, CFS) supports this perspective, while uncoupled models e.g. GFS, Canadian, JMA) continue to emphasize Rossby wave activity and a slow decay of the MJO over the Western Hemisphere through early March.

Over the past week one tropical cyclone (TC) developed, Tropical Depression 2 near 4N/158E in the West Pacific. The Joint Typhoon Warning Center (JTWC) forecasts this system to continue tracking west near 5 N through about 150E before taking a slight turn to the northwest. The JTWC forecast track brings the system south of Guam by the weekend as a marginal typhoon. Tropical storm force winds appear likely for Guam on the 23rd as the system approaches. For more information on this system, interested parties are referred to the National Weather Service forecast office in Guam or JTWC. Elsewhere, TC Oma continues to churn in the Coral Sea (20S/162E as of 6Z on 19 February) with 75-knot winds currently estimated. Oma is forecast to track generally southward over the next week and remain off the east coast of Australia. The only area where TC formation is anticipated during Week-1 is over the South Pacific near Samoa late in Week-1, with the system then likely to track south-southeastward over the rest of the week. There is moderate confidence that this formation will occur, and if the system were to develop, it appears likely to remain a tropical depression or weak tropical storm.

Highest confidence regarding precipitation in Week-1 is for above-normal precipitation with each of the aforementioned TCs, above-normal rains in the Central through South Pacific tied to the low frequency state, below-normal rains across the Maritime Continent and West Pacific off the equator tied to the constructive interference of the low frequency state and suppressed phase of the MJO, and above-normal precipitation from the Central Gulf of Mexico through the Mid-Atlantic tied to a stalled frontal boundary. Less confident during Week-1 are chances for above-normal precipitation east of Hawaii tied to a mid-latitude trough, frontal activity from eastern China through the East China Sea and Southern Japan, a Rossby wave over the equatorial Indian Ocean, and a recurving disturbance over the southwestern Indian Ocean. Additionally, moderate confidence for below-normal precipitation exists across portions of Southern Africa near 20N eastward through Madagascar that is denoted by the GFS, CFS, and ECMWF models. Three areas of above-normal temperatures are indicated across Australia, with moderate confidence during Week-1 in line with guidance from the Australian government's Bureau of Meteorology. The initial risk appears to be for Queensland and the Northern Territory, before becoming focused across Western Australia later in Week-1.

By Week-2, the MJO is forecast to be reaching the Indian Ocean, leading to a wetter pattern for the basin with high confidence for above-normal rains between 60 and 90E. Suppressed rainfall continues to be anticipated with high confidence across the Maritime Continent tied to the low frequency state and continued constructive interference out ahead of the MJO envelope. High confidence for above-normal rains continues along the equator from 165E-135W tied to anomalously warm SSTs and the ongoing El Nino. Moderate confidence for above-normal precipitation tied to frontal activity continues from East China through southern Japan and along the Gulf of Mexico into the far western Atlantic. High confidence for below-normal temperatures tied to the MJO transitioning into the Indian Ocean exist across much of North America, in line with the Extended Range Outlook issued on Feb 19.

Forecasts over Africa are made in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.