

The MJO increased in amplitude during late January, according to the Wheeler-Hendon RMM index and the CPC index based on the 200-hpa Velocity Potential. The enhanced phase of the MJO propagated east from the Maritime Continent to the West Pacific recently, while its suppressed phase entered the western Indian Ocean. Dynamical model solutions and statistical tools indicate a continued high amplitude MJO propagating east across the Pacific Ocean (phases 6 to 8) during early to mid-February.

On January 27, Tropical cyclone Cebile developed over the south Indian Ocean, to the southeast of Diego Garcia at 9.8S/85.3E. A favorable environment, in the wake of the enhanced phase of the MJO, allowed Cebile to intensify rapidly with maximum sustained winds reaching 135 mph by January 28. Cebile is forecast to gradually weaken as it gains latitude over the south Indian Ocean. Tropical cyclone Fehi formed over the Coral Sea (16.1S/160E) on January 28. Fehi briefly strengthened with maximum sustained winds of 60 mph as it passed near New Caledonia. Although Fehi is expected to lose its tropical characteristics, the GFS and ECMWF models indicate that the powerful extratropical low will track near or over the South Island of New Zealand where heavy rainfall along with high winds and seas are likely on January 31 and February 1.

The predicted evolution of the MJO favors additional tropical cyclone (TC) development over the Coral Sea region and South Pacific during early February, while the large scale environment is forecast to become unfavorable for TC genesis over the south Indian Ocean. Multiple TCs are likely to form from the Coral Sea to the South Pacific, east of the Date Line, during Week-1. Model guidance agrees that a weak tropical cyclone forms at a low latitude (along or south of 10N) across the West Pacific. The risk of TC development remains high for the South Pacific through Week-2, while the GFS model has a weaker signal for TC development over the Coral Sea or Gulf of Carpentaria.

The precipitation outlook during the next two weeks is based on MJO composites for phases 6 through 8 along with guidance from the CFS, ECMWF, and GFS models. These tools strongly favor below (above)-average rainfall across the south Indian (Pacific) Ocean through early February. An amplifying midlatitude trough and stalled surface front are expected to result in above-average rainfall across Hawaii during Week-1. A strong surface high is forecast to shift south from Siberia and northern China, resulting in much below-normal temperatures across southern China, northern areas of Thailand and Vietnam, and Taiwan during the first week of February. After a period of heat relief across Australia at the beginning of February, the GEFS indicates a return of much above-normal temperatures across New South Wales, South Australia, and Victoria by the second week of February.

The GFS and ECMWF ensemble means on January 30 indicate arctic high pressure extending south into the middle latitudes of central and eastern North America during early February, strongly favoring below-normal temperatures across the upper Mississippi Valley and Great Lakes. The eastward propagation of the MJO across the West Pacific is expected to prolong below-normal temperatures across these areas through at least mid-February.

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