January 2024 ENSO Update

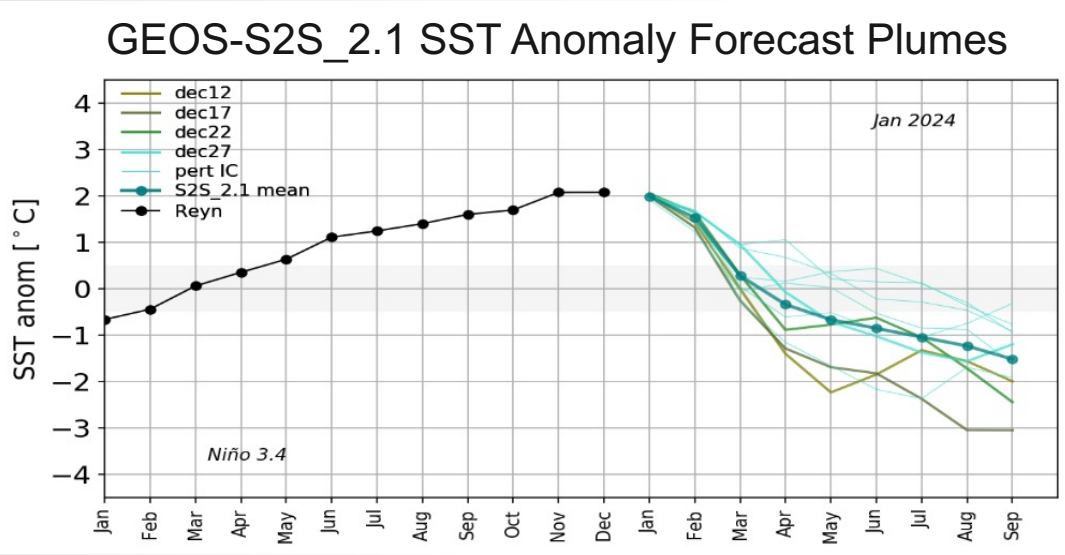

Figure 1: Sea surface temperature anomaly forecasts from the GEOS-S2S_2.1 model, for the El Niño 3.4 region. Temperatures will continue cooling towards a neutral ENSO phase, followed by trend to La Niña phase by Autumn 2024.

The January ENSO forecast of the S2S_2.1 ensemble mean forecasts a progressive cooling of the sea surface temperatures (SSTs) heading into the Spring months, continuing through the Summer to early Autumn. These runs suggest a shift to neutral Niño 3.4 conditions, continuing a trend set by December runs. The 2024 El Niño is starting to be referred to as an uncoupled El Niño, the last of which occurred in 2018. There are several similarities in the 2m temperature forecasts from 2018 and 2024, including widespread warming over most of North America in the February and March forecast. However, cooling is forecasted for the eastern US during that time, with drier conditions also expected for much of that same region – particularly the mid-Atlantic and northeast.

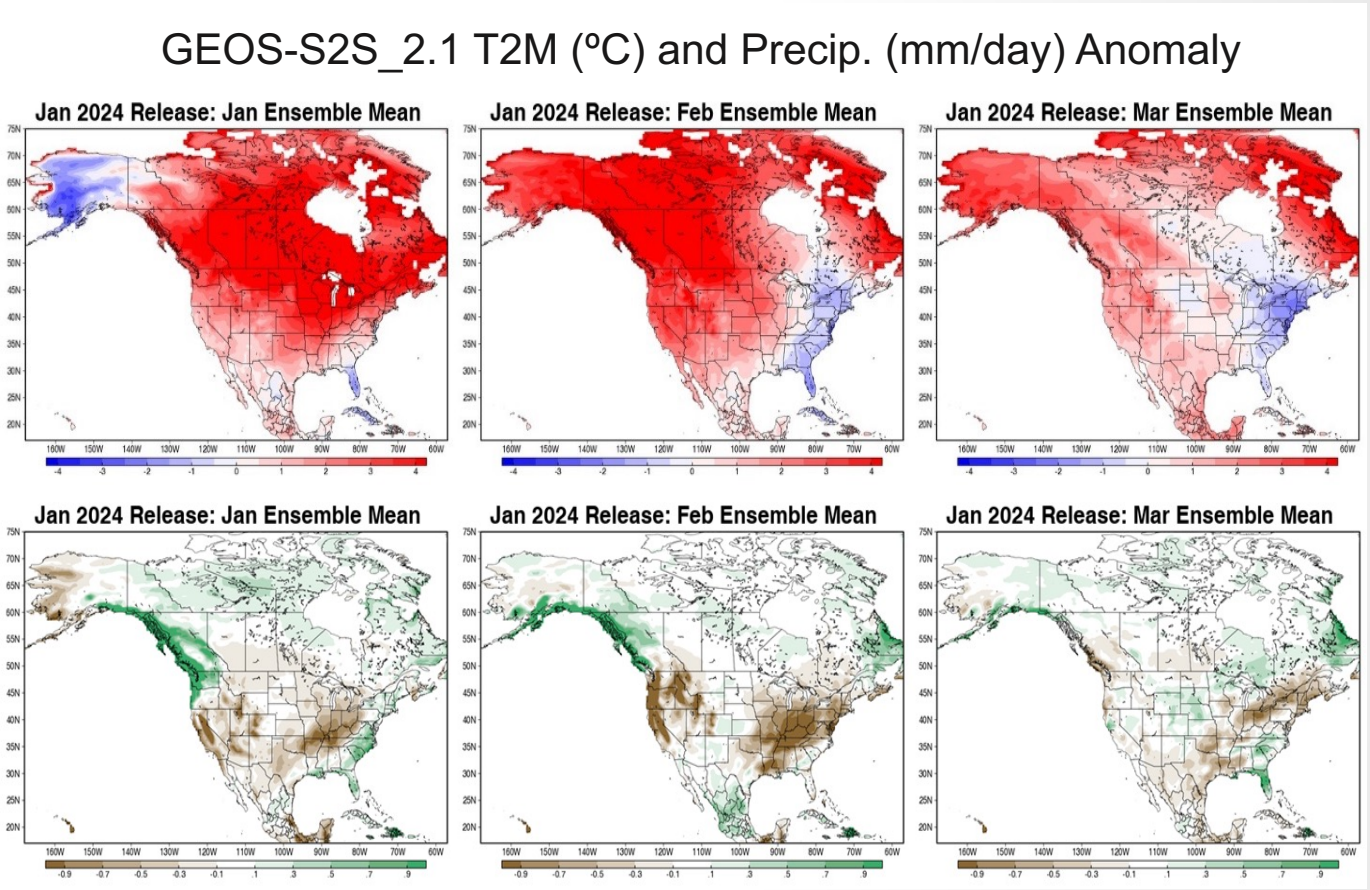

Figure 2: 2-meter temperature (T2M) is expected to remain anomalously higher through the end of winter for most of North America, except for the US East Coast. Much of the continent is expected to see below-average precipitation for February and March, outside of the upper Pacific coast and northeastern Canada.