

It is well established that the El Niño-Southern Oscillation (ENSO) provides predictability on seasonal timescales. However, real-time predictions of ENSO remain far from assured, which provides motivation to better understand ENSO and its potential impacts. I will focus on how NOAA/NWS's ENSO outlooks are put together, the associated skill in ENSO prediction, and some areas of recent research that may provide some opportunity for improvement and understanding. This talk will also provide a brief overview of the Madden-Julian Oscillation (MJO) and how recent advances in MJO monitoring and prediction have opened the door to distinguishing its influence on sub-seasonal climate (Weeks 1-4) over North America.