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Service Change Notice 21-27A
National Weather Service Headquarters Silver Spring MD
845 AM EDT Mon May 3 2021

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From: Jeffrey Craven
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 Meteorological Development Laboratory

Subject: Update to the National Blend of Model's (NBM) Quantile Mapping and Dressing (QMD) to Fix an Issue with Unrealistically High Probability of Precipitation Values over Northwest Mexico

Effective on or about Tuesday May 11, 2021, beginning with the 1200 Coordinated Universal Time (UTC) model run, the NWS National Centers for Environmental Prediction (NCEP) Central Operations will implement an update to the National Blend of Models (NBM) Quantile Mapping and Dressing (QMD).

In the event that the implementation date is declared a Critical Weather Day (CWD), or significant weather is occurring or is anticipated to occur, implementation of this change will occur at 1200 UTC on the next weekday not declared a CWD and when no significant weather is occurring.

In late-March, stakeholders including NWS's Weather Forecast Offices in Arizona and New Mexico identified anomalous high Probability of Precipitation (PoP) values over northwestern Mexico (Baja California peninsula, Gulf of California and interior Mexico).

Upon investigation, it was determined that there was a missing check for a certain condition in the QMD system. The missing check was causing zero amount precipitation forecast values from direct model output to be quantile-mapped, yielding light precipitation amounts, strong enough to exceed the PoP threshold of 0.01 inches. This update will apply the check, which should alleviate the artificially high PoP values in the above mentioned region.

Any questions, comments or requests regarding this implementation should be directed to the contacts below.

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For questions regarding the dataflow for NWS/NCEP services, please contact:

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A webpage describing the NBM can be found at:

http://www.weather.gov/mdl/nbm_home

National Service Change Notices are online at:

<http://www.weather.gov/notification>

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