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PNSWSH

Service Change Notice 17-86  
National Weather Service Headquarters Silver Spring MD  
910 AM EDT Mon Jul 10 2017

To:           Subscribers:  
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              -Emergency Managers Weather Information Network  
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              Other NWS Partners, Users and Employees

From:         Dave Myrick  
              NWS Office of Science and Technology Integration

Subject: Sea Surface Temperature Change to the RAP and HRRR: Effective  
July 12, 2017

Effective on or about July 12, 2017, beginning with the 0100 Coordinated Universal Time (UTC) run, the National Centers for Environmental Prediction (NCEP) will make a change to the Sea Surface Temperature (SST) analysis within the Rapid Refresh (RAP) and the High Resolution Rapid Refresh (HRRR) models.

Currently, the RAP and HRRR combine two SST analyses, the Real-Time Global (RTG) and a Two-Dimensional Variational (2D-Var), in making their respective daily 01 UTC SST updates. The temperatures of resolved rivers and small inland lakes are present in both SST analyses, but only the 2D-Var analysis is used to determine the small lake and river temperatures ultimately initialized in the RAP and HRRR.

It has recently come to the attention of NCEP that small inland lake temperatures are much too cold in the RAP and HRRR as a result of poor 2D-Var analyses. NCEP is proposing to discard the 2D-Var analysis and rely solely on the RTG analysis for determining all initial water temperatures in the RAP and HRRR (except for a few larger inland lake temperatures which are and will continue to be specified by climatology). As a result of discarding the 2D-Var analysis, users can expect resolved river and small inland lake temperatures to be significantly improved in the RAP and HRRR and in all downstream models. The largest downstream impacts will occur within the Real-Time Mesoscale Analysis (RTMA) and UnRestricted RTMA (URMA). For the full list of downstream models, please email the contacts below.

These changes will impact all model output on NCEP web services and NOAAPort/Satellite Broadcast Network (SBN). Users do not need to take any action and will continue to receive the data as they are currently.

Any questions, comments or requests regarding this change should be directed to the contacts below. We will review any feedback and decide whether to proceed.

For questions regarding these model changes, please contact:

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For questions regarding the dataflow aspects of these data sets, please contact:

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