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Service Change Notice 19-12 National Weather Service Headquarters Silver Spring MD 805 AM EST Tue Feb 26 2019

- To: Subscribers: -NOAA Weather Wire Service -Emergency Managers Weather Information Network -NOAAPort Other NWS Partners, Users and Employees
- From: David R. Novak Acting Director National Centers for Environmental Prediction

Subject: GFS Version 15 Model Implementation Schedule is Paused Until a Date to be Determined

Testing continues for the Global Forecasting System (GFS) Version 15 using the Finite Volume Cubed-Sphere (FV3) dynamical core. NOAA's Environmental Modeling Center (EMC) conducted, and continues to conduct, extensive evaluation and verification of the model. The GFS with the FV3 core shows continued improvement over the legacy GFS for many forecast parameters.

EMC is aware of two issues:

- The snow depth and the water equivalent of snow depth at the surface have unrealistically large values when precipitation occurs in environments with low-level temperature profiles close to freezing. Techniques that use either of these variables for deriving snowfall will exhibit excessive snowfall values.

- The model forecasts exhibit a cold bias in the lower atmosphere that became more prominent after late September 2018.

EMC is investigating both issues and any necessary changes will be tested. After sufficient testing and evaluation an announcement will be sent when National Centers for Environmental Prediction (NCEP) Central Operations (NCO) is ready to start the formal 30-day IT Stability Test. The model implementation schedule is currently paused during the investigation.

In the interim, there will be no change to the availability of products from the operational GFS model and real-time parallel. Feedback from the community examining the model output has been crucial in improving the model. We encourage continued examination of the real-time parallel and retrospective data that can be accessed as highlighted below:

- The output data from the Global Forecasting System (GFS) version 15 is available on our public web servers at: https://para.nomads.ncep.noaa.gov/

- Imagery from the GFS Version 15 are available at the evaluation site: <a href="https://mageval.ncep.noaa.gov/">https://mageval.ncep.noaa.gov/</a> (under "Model Guidance" select Model Type -- GFS)

- EMC has also conducted retrospective experiments covering the past 3.5 years for a comprehensive evaluation of the model. We continue to examine real-time parallel runs. Evaluation of both the real-time and retrospective parallels can be found at: https://www.emc.ncep.noaa.gov/users/Alicia.Bentley/fv3gfs

This site includes relevant links to various evaluation and verification web sites.

For questions regarding test products from GFS Version 15, please contact:

Jason Levit Chief, EMC Verification, Post-Processing and Product Generation Branch jason.levit@noaa.gov

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

ncep.list.pmb-dataflow@noaa.gov

For media inquiries, please contact:

Lauren Gaches NWS Public Affairs <u>lauren.gaches@noaa.gov</u> 301-683-1327

National Service Change Notices are online at:

https://www.weather.gov/notification/archive

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