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Service Change Notice 20-51
National Weather Service Headquarters Silver Spring MD
950 AM EDT Fri May 8 2020

To: Subscribers:
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From: Grant A. Cooper
Acting Director
National Centers for Environmental Prediction

Subject: Upgrade to Hurricanes in a Multi-scale Ocean-coupled Non-hydrostatic (HMON): Effective June 9, 2020

Effective on or about Tuesday, June 9, 2020 with the 1200 Coordinated Universal Time (UTC) cycle, the National Centers for Environmental Prediction (NCEP) Central Operations (NCO) will be implementing the Hurricanes in a Multi-scale Ocean-coupled Non-hydrostatic (HMON).

The scientific and technical enhancements include the following:

- Upgrade of Nonhydrostatic Multiscale Model on the B-grid (NMMB) dynamic core with bug fixes
- Increase model vertical resolution from 51 to 71 levels
- Use original IGBP roughness length
- Turn on GWD over the outermost domain
- Use the latest version of HYCOM

The 2020 HMON system has been fully tested and compared with the forecast skill of 2019 operational HMON v2.1.3. Overall, it has shown improved skill in track and intensity forecasts for both North Atlantic (NATL) and Eastern Pacific (EPAC) basins.

Product Timing Changes:

Occasionally, products will be available up to 10 minutes faster. All forecast products for all basins will be available before T+6:00.

Sample HMON products from 2020 HMON are available at:

https://para.nomads.ncep.noaa.gov/pub/data/nccf/com/hur/para/

More details about the HMON system are available at:

http://www.emc.ncep.noaa.gov/gc_wmb/vxt/HMON/index.php

NCEP encourages users to ensure their decoders are flexible and are able to adequately handle changes in content order, changes in the scaling

factor component within the product definition section (PDS) of the gridded binary (GRIB) files, and any volume changes which may be forthcoming. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes prior to any implementations.

Any questions, comments or requests regarding this implementation 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 data flow aspects of these datasets, contact:

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National Service Change Notices are online at:

https://www.weather.gov/notification

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