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Service Change Notice 21-61
National Weather Service Headquarters Silver Spring MD
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From: Michael Farrar
Director
National Centers for Environmental Prediction

Subject: Announcement of Minor Upgrade to the Global Ensemble Forecast System (GEFS): Effective July 20, 2021

Effective on or about July 20, 2021, beginning with the 1200 Coordinated Universal Time (UTC) run, the NCEP Global Ensemble Forecast System (GEFS) will be updated from Version 12.1.1 to Version 12.1.2.

The GEFSv12.1.2 upgrade includes some minor fixes to the atmospheric products.

A. Specifics on Upgrade of Atmospheric Component

* Improved interpolation of grib2 files from the model's native Gaussian grid: Use bilinear interpolation to replace the current nearest neighbour interpolation for the land-sea mask (LAND).

* Inclusion of a new variable to the list of 0.25degree output products onto NCEP web servers: MSLET (Mean Sea Level Pressure with Eta model reduction).

B. Product Changes and Addition Associated with GEFSv12.1.2

Under gens/prod/gefs.$PDY/$CYC/atmos/

* New product
- For the files in the "pgrb2sp25" sub-directory, MSLET is added.
Changed files are

pgrb2sp25/ge${mem}.t${CYC}z.pgrb2s.0p25.f${hhh}
Where

${mem}=ensemble member/product; e.g. avg (mean); spr (spread); c00 (control); p01; p02; …; p30
${hhh}=forecast hour; e.g. 000; 003; 006; …; 240
${CYC}=Cycle of the day; e.g. 00/06/12/18 UTC

* Existing product changing contents

- The LAND variable in the files of the "pgrb2bp5" sub-directory is generated using bilinear interpolation instead of the current "nearest neighbour" scheme. Please note that the variable continues to take values of 1 (land) or 0 (sea) and it is now consistent with soil variables such as TSOIL and SOILW.

Changed existing filenames are:

pgrb2bp5/ge${mem}.t${CYC}z.pgrb2a.0p50.f${hhh}

Where

${mem}=ensemble member/product; e.g. c00(control); p01; p02; ...., p30

${CYC}=Cycle of the day; e.g. 00/06/12/18 UTC

${hhh}=forecast hour; e.g. 000; 003; 006; …; 237, 240; 246, ..., 384; and (00 UTC only) 390; 396; ....; 840

Disclaimer: NCEP would encourage all users to ensure their decoders are flexible and are able to adequately handle changes in content order, parameter fields changing order, changes in the scaling factor component within the Product Definition Section (PDS) of the GRIB files, and also 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 implementation.

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 changes, please contact:

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National Service Change Notices are online at:

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

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