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PNSWSH

Service Change Notice 20-100 Updated  
National Weather Service Headquarters Silver Spring MD  
220 PM EST Mon Feb 1 2021

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

From:         Bruce Entwistle  
              Chief, Aviation and Space Weather Services Branch

Subject: Updated: Geospace Model (SWMF) Upgraded to Version 2.0: Effective  
February 3, 2021

Updated to reflect new implementation date of February 3, 2021.

Effective February 3, 2021, beginning with the 1700 Coordinated Universal  
Time (UTC) run, the National Weather Service will deploy an upgrade to the  
Geospace model. This upgrade from v1.5 to v2.0 includes the following:

- Increasing grid resolution in targeted regions of the numerical grid,  
moving from ~1 million grid cells to 1.9 million.
- Implementing new auroral oval specification yielding improved accuracy.
- Adding new composition settings for magnetospheric tail.
- Employing NOAA OperNOMADS dissemination of model results.

The Geospace model is run continuously and data files will be available at  
varying times.

With this upgrade, the following data types will be available on NCEP web  
services:

<https://nomads.ncep.noaa.gov/pub/data/nccf/com/swmf/prod/swmf.YYYYMMDD>  
<ftp://ftpprd.ncep.noaa.gov/pub/data/nccf/com/swmf/prod/swmf.YYYYMMDD>

PARAM.in  
IMF.dat  
GM/IO2/PARAM\_YYYYMMDDTHHMM\_?.txt  
GM/IO2/IMF\_YYYYMMDDTHHMM.dat  
GM/IO2/geoindex\_YYYYMMDDTHHMM.txt  
GM/IO2/log\_YYYYMMDDTHHMM.txt  
GM/IO2/mag\_grid\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM.txt  
GM/IO2/mag\_stations\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM.txt  
GM/IO2/lcb\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM.txt  
GM/IO2/shl\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM.txt  
GM/IO2/y0\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM  
GM/IO2/z0\_YYYYMMDDTHHMM\_YYYYMMDDTHHMM

RB/plots/YYYYMMDD\_HHMMSS\_e.flc

Where YYYY is year, MM is month, DD is day, HH is hour, MM is minute, SS is second.

More information about the upgrade to the Geospace model at SWPC can be found in the news release linked below:

[https://www.swpc.noaa.gov/news/geospace-model-\(SWMF\)-upgraded-to-version-2.0](https://www.swpc.noaa.gov/news/geospace-model-(SWMF)-upgraded-to-version-2.0)

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 any comments/feedback on the model upgrade at SWPC, please contact:

Dr. Howard Singer  
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NOAA Space Weather Prediction Center  
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and

Dr. Jennifer L. Meehan  
National Space Weather Program Lead  
National Weather Service Headquarters  
Silver Spring, MD  
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For questions regarding the data flow aspects, please contact:

Anne Myckow  
NCEP Central Operations Dataflow Team  
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National Service Change Notices are online at:

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

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