

NOUS41 KWBC 021935
PNSWSH

Service Change Notice 20-100
National Weather Service Headquarters Silver Spring MD
835 AM EST Mon Nov 2 2020

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: Geospace model (SWMF) upgraded to Version 2.0
 Effective December 3, 2020

Effective December 3, 2020, beginning with the 1200 Universal Coordinated Time (UTC) run, NWS 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 NOMADS 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 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
Geospace Project Lead
NOAA Space Weather Prediction Center
Boulder, CO
howard.singer@noaa.gov

and

Dr. Jennifer L. Meehan
National Space Weather Program Lead
National Weather Service Headquarters
Silver Spring, MD
jennifer.meehan@noaa.gov

For questions regarding the data flow aspects, please contact:

Anne Myckow
NCEP Central Operations Dataflow Team
ncep.pmb.dataflow@noaa.gov

NWS Service Change Notices are online at:
<https://www.weather.gov/notification>

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