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PNSWSH

Technical Implementation Notice 14-15: Amended  
National Weather Service Headquarters Washington DC  
120 PM EDT Tue Jul 29 2014

To: Subscribers:  
- Family of Services  
- NOAA Weather Wire Service  
- Emergency Managers Weather Information Network  
- NOAAPORT  
Other NWS partners and NWS employees

From: Eli Jacks  
Chief, Fire and Public Weather Services Branch

Subject: Amended: Increasing Resolution in the National Digital  
Forecast Database (NDFD) Effective Tuesday,  
August 19, 2014

Amended to change the following:

1. Exclude changes to resolution of eXtensible Markup Language (XML) via Simple Object Access Protocol (SOAP) and Representational State Transfer (REST)
2. Include access to legacy CONUS grids at current resolution after the implementation
3. Note that preparatory work combining fine resolution files in the experimental NDFD was completed on May 6, 2014

[www.nws.noaa.gov/os/notification/tin14-14ndfd-fine\\_res.htm](http://www.nws.noaa.gov/os/notification/tin14-14ndfd-fine_res.htm)

Effective Tuesday, August 19, 2014, at 1400 Coordinated Universal Time (UTC), the NWS will transition the spatial and temporal resolution in the NDFD from experimental to operational status. After this transition, the operational NDFD will be available at 2.5km spatial resolution for all forecast times and at 1 hour temporal resolution for the first 36 hours from NDFD issuance time. These are the finest spatial and temporal resolutions at which Weather Forecast Offices in the Conterminous United States (CONUS) provide forecasts. Forecasts from NWS offices and centers employing coarser resolutions will be mapped onto the finer resolution NDFD grid.

This change will affect files containing data for the entire CONUS, but will not affect Alaska, Hawaii, Guam, Puerto Rico and the Virgin Islands, or the pre-defined 16 CONUS subsectors which will remain at their current operational resolutions.

Specifications for the 2.5km NDFD CONUS grid can be viewed at the following URL:

<http://graphical.weather.gov/docs/ndfdSRS.htm>

This implementation will affect CONUS forecasts available from NDFD in these standard methods:

- GRIdded Binary version 2 (GRIB2) files via Hypertext Transfer Protocol (HTTP) and File Transfer Protocol (FTP)

This implementation WILL NOT affect CONUS forecasts available from NDFD in these standard methods:

- eXtensible Markup Language (XML) via Simple Object Access Protocol (SOAP) and Representational State Transfer (REST), which will remain at their current resolution

Users who pull NDFD elements in GRIB2 format, either via the internet or via the Family of Services server access service, may need to update their procedures and scripts to access these elements at fine resolution.

To access experimental fine resolution grids before the operational implementation, use the following URLs:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndfd/AR.conus/>

or

<http://weather.noaa.gov/pub/SL.us008001/ST.expr/DF.gr2/DC.ndfd/AR.conus/>

To access fine resolution grids after 1400 UTC on August 19, 2014, use the following URLs:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndfd/AR.conus/>

or

<http://weather.noaa.gov/pub/SL.us008001/ST.opnl/DF.gr2/DC.ndfd/AR.conus/>

Legacy CONUS grids at the current resolution will be made available for at least 90 days after the operational implementation at the following URLs:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndfd/AR.conus/>

or

<http://weather.noaa.gov/pub/SL.us008001/ST.expr/DF.gr2/DC.ndfd/AR.conus/>

Effective May 6, 2014 (per TIN 14-14), fine resolution element grids were combined into one file for day 1 through day 3, and a second file for day 4 through day 7, using the same WMO headers

currently on operational NDFD grids. Grids for selected elements were more tightly packed in GRIB2 format with both decimal and binary scaling applied. GRIB2 encoding characteristics for each NDFD element can be viewed at the following URL:

[http://graphical.weather.gov/docs/grib\\_design.html#element\\_encoding\\_lo](http://graphical.weather.gov/docs/grib_design.html#element_encoding_lo)

To view NDFD grids for the CONUS at full resolution, use the experimental NDFD map viewer at the following URL:

<http://preview.weather.gov/graphical/>

General information on accessing and using NDFD elements is at:

<http://ndfd.weather.gov/technical.htm>

If August 19, 2014, is a critical weather day, this implementation may be postponed. Users will be notified of that decision via another Technical Implementation Notice as far in advance as possible.

For general questions regarding NDFD data, please email:

[nws.ndfd@noaa.gov](mailto:nws.ndfd@noaa.gov)

For technical questions regarding NDFD data, please contact:

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Technical Implementation Notices specifically related to NDFD are online at:

<http://www.weather.gov/ndfd/tins.htm>

National Technical Implementation Notices are online at:

<http://www.weather.gov/os/notif.htm>

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