

NOUS41 KWBC 161935
PNSWSH

Service Change Notice 18-84
National Weather Service Headquarters Silver Spring MD
335 PM EDT Thu Aug 16 2018

To: Subscribers:
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 -Emergency Managers Weather Information Network
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From: Douglas C. Young, Chief
 Digital and Graphical Information Support Branch

Subject: Corrections to Gridded Binary Version Two (GRIB2) Encoding
Parameters for National Digital Forecast Database (NDFD) Products:
Effective October 30, 2018

Effective October 30, 2018, changes to certain GRIB2 encoding parameters
for select NDFD products will be implemented. The following is a detailed
list of the changes that will take place:

1) Change type of first fixed surface (Section 4, Octet 23) from Ground or
Water Surface (1) to Specified Height above Ground Level (103). This
change applies to the following NDFD weather elements:

Maximum Temperature
Minimum Temperature
Temperature
Dew Point Temperature
Apparent Temperature
Wind Speed
Wind Direction
Wind Gust
Relative Humidity
Maximum Relative Humidity
Minimum Relative Humidity

2) Change scaled value of first fixed surface (Section 4, Octet 25) from 0
meters to 2 meters. This change applies to the following NDFD weather
elements:

Maximum Temperature
Minimum Temperature
Temperature
Dew Point Temperature
Apparent Temperature
Relative Humidity
Maximum Relative Humidity
Minimum Relative Humidity

3) Change scaled value of first fixed surface (Section 4, Octet 25) from 0 meters to 10 meters. This change applies to the following NDFD weather elements:

Wind Speed
Wind Direction
Wind Gust

4) Change encoding of Forecast Time value (Section 4, Octet 19; Template 4.8 and Template 4.9) to conform strictly to GRIB2 standards. The Forecast Time specified in Section 4, Octet 19, together with the Reference Time (Section 1, Octets 13-20) defines the start time of the valid time interval. This change applies to the following NDFD weather elements:

Maximum Temperature
Minimum Temperature
Maximum Relative Humidity
Minimum Relative Humidity
12-hour Probability of Precipitation
Quantitative Precipitation Forecast
Snow Amount
Ice Accumulation
Forecast Reference Evapotranspiration (FRET)
FRET Departure from Climatology
Total FRET
Storm Surge Threat
Flooding Rain Threat
Tornado Threat
Wind Threat
Convective Hazard Outlook
Critical/Extreme-Critical Risk Fire Weather Outlook
Dry Lightning Thunderstorm Risk Fire Weather Outlook
Probability of Hail
Probability of Extreme Hail
Probability of Tornadoes
Probability of Extreme Tornadoes
Probability of Damaging Thunderstorm Winds
Probability of Extreme Thunderstorm Winds
Total Probability of Severe Thunderstorms
Total Probability of Extreme Severe Thunderstorms

5) Change the encoded Parameter Number (Section 4, Octet 11) for the NDFD element WaveHeight from 5 (Significant Height of Wind Waves) to 3 (Significant Height of Combined Wind Waves and Swell).

Sample GRIB2 files with the corrected encoding can be found at:

<https://sats.nws.noaa.gov/~downloads/ndfd/grib2/>

Information on accessing and using NDFD elements is online at:

https://www.weather.gov/mdl/ndfd_home

For general questions regarding NDFD data, please email:

nws.ndfd@noaa.gov

For technical questions regarding NDFD data, please contact:

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NDFD-related notices are online at:

[https://www.weather.gov/mdl/ndfd TINs](https://www.weather.gov/mdl/ndfd_TINs)

National Service Change Notices are online at:

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

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