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Operations and Services

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NATIONAL DIGITAL GUIDANCE DATABASE SPECIFICATIONS

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National Digital Guidance Database Specifications

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1. Introduction. This procedural directive describes the National Digital Guidance Database (NDGD) -- a component of the National Weather Service (NWS) digital data infrastructure. The NDGD complements the National Digital Forecast Database (NDFD). Information within the NDGD is considered guidance and is not the official NWS forecast. The official NWS forecast is provided in the NDFD.

The NDGD contains forecasts and observations of sensible weather elements that relate to and supplement the NDFD. It will also contain digital data that help in the use and interpretation of NDFD, such as model probabilities, climatological normals, and NDFD verification scores.

NDFD is always current. It is intended to provide a complete and consistent forecast in time and space, among elements, and with other official NWS forecast products. In contrast, NDGD is updated on a schedule from a variety of model sources. It is not necessarily consistent with other parts of NDGD nor with official NWS forecast products.

2. Mission Connection. The NDGD is intended to furnish data in an efficient, convenient, and versatile form to meet user needs for information in addition to official NWS forecasts. The NDGD will be interoperable with NDFD. User applications developed for use with NDFD will also work with NDGD.

3. NDGD Database Characteristics

3.1 Description. The NDGD Database is a central database storing geospatially referenced (Geographic Information System (GIS) compatible) digital information that is primarily derived from model output.

3.2 NDGD Contents. The NDGD contains base digital data for a variety of operational and experimental weather, water, and climate information. The experimental NDGD data is not an official NWS forecast product. Detailed information can be found at the NDGD resource page at: <http://www.weather.gov/ndgd/index.shtml>. The status of these grid fields will be clearly denoted as operational or experimental within the file or product. The specific grids (and associated resolutions) available in the NDGD are shown in: http://www.weather.gov/ndfd/resources/NDFD_element_status.pdf.

3.3 Availability and Timeliness. The NDGD is a dynamic database. Guidance grids are generated primarily on a schedule basis at National Centers.

3.4 Format. The NDGD data is presented in *GRIB, Edition 2, format*. Selected NDGD data are also available via web services (e.g., Simple Object Access Protocol (SOAP) and Extensible Markup Language (XML)). Details can be found at <http://www.nws.noaa.gov/ndgd/technical.shtml>.

3.5 Spatial Resolution. NDGD data will be on the NDFD grid at spatial resolutions comparable to NDFD.

3.6 Temporal Resolution. NDGD data will be on the NDFD grid at a temporal resolution comparable to NDFD.

3.7 NDGD Gridded Data Access. NDGD data will be available for the conterminous United States, Puerto Rico, Hawaii, Guam, and Alaska, depending on model availability. NDFD geographic sectors will not be provided.

The data can be accessed from the NDGD FTP server by following the instructions provided via the active web link below:

[NDGD GRIB2 Data Access](#)

3.8 NDGD Graphic Forecast Displays. NWS NDGD graphic products are derived from a prescribed set of data contained within the NDGD. Available graphics will follow the format prescribed for NDFD.