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Operations and Services

Digital Services Specification, NWSPD 10-2

NATIONAL DIGITAL GUIDANCE DATABASE SPECIFICATIONS

NOTICE: This publication is available at: http://www.nws.noaa.gov/directives/.

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-202, *National Digital Guidance Database Specifications*, dated February 2, 2012. Primary revisions to this document include:

1.) Updated GRIB, Edition 2, Format Data Access Link, Section 3.4
2.) Updated GRIB 2 Data Access Link, Section 3.7
3.) Updated Approving Official

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National Digital Guidance Database Specifications

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

NDFD is intended to be current and 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 or 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 is interoperable with NDFD. User applications developed for use with NDFD are compatible 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 NDGD data are guidance NWS forecast products. Detailed information can be found at the NDGD resource page. 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) are available in the NDGD.

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 are described 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 are on the NDFD grid at spatial resolutions comparable to NDFD.

3.6 Temporal Resolution

NDGD data are on the NDFD grid at a temporal resolution comparable to NDFD.

3.7 NDGD Gridded Data Access

NDGD data are available for the conterminous United States, Puerto Rico, Hawaii, Guam, and Alaska, depending on model availability. NDFD geographic sectors, however, are not 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.