

National Digital Forecast Database (NDFD) Gridded Data Product Description Document

Part I - Mission Connection

- a. Product/Service Description - The [National Digital Forecast Database \(NDFD\)](#) contains a seamless mosaic of digital weather forecasts from National Weather Service (NWS) field offices and the National Centers for Environmental Prediction (NCEP).
- b. Purpose/Intended Use – In support of the mission described in the *National Weather Service Strategic Plan for FY2005 - FY 2020*, "expanded digital services allow communication of forecast information with greater resolution in time and space and facilitates the integration of data in all service program areas." The NDFD is the primary means by which digital information is available to customers and partners. As part of this digital database, Snow Accumulation grids are available in response to growing user needs for planning purposes and critical safety decisions. Future digital datasets will continue to be developed in accordance with growing user needs.
- c. Audience – The current audience for NDFD gridded data includes large volume users of forecast information, emergency managers, the media, numerous local, state, and federal government agencies (including NWS field offices), academia, and many other users. They are also for anyone who wishes to decode and explore various potential applications of the Snow Accumulation data, or simply to view, post, or distribute the graphic images.
- d. Presentation Format – NDFD elements are available in Gridded Binary Data Edition 2 (GRIB2) via file transfer protocol (ftp) or hypertext transfer protocol (http), eXtensible Markup Language (XML), and as graphics via the web browser.
 1. GRIB2 format via file transfer protocol (ftp) or hypertext transfer protocol (http): The GRIB2 files can be decoded and converted to other formats, such as shapefiles, netCDF files, etc. A tutorial to download NDFD elements, decode them and generate images is [available online](#).

NDFD elements are available in GRIB2 from the [NWS ftp server](#) for the CONUS and/or for the [16 predefined NDFD CONUS subsectors](#).

2. Extensible Markup language (XML): Users can request NDFD elements over the Internet using the NDFD XML Simple Object Access Protocol (SOAP) server. The response to the user request is returned in XML format. For more information, please refer to the [NDFD XML Service Description Document](#).
3. Online NDFD graphics: Snow Accumulation images may be accessed from the [NWS homepage](#) by clicking on the [Graphical Forecasts](#) tab. To access these and other NDFD

elements, or for further availability and technical information (e.g., temporal and spatial resolutions, forecast projections, and geographic coverage), please refer to the [NDFD technical details page](#).

- e. Feedback Method - User feedback is extremely important in our effort to improve the quality and usefulness of products and services.

For general questions regarding the National Digital Forecast Database, please email: [*nws.ndfd@noaa.gov*](mailto:nws.ndfd@noaa.gov)

Technical questions regarding the NDFD may be addressed to:
National Weather Service Headquarters
ATTN: David Ruth, W/OST21
1325 E-W Highway, SSMC2
Silver Spring, MD 20910

Part II - Technical Description

- a. Format and Science Basis - The NDFD forecast element definitions and technical information (e.g., temporal and spatial resolutions of the graphics, and geographic coverage) may be found on the NDFD technical page at the following URLs:

<http://www.nws.noaa.gov/ndfd/technical.htm>

<https://ocwws.weather.gov/ndfd/GFE/coordination.htm>

- b. Product Availability – NDFD data are available at the following Coordinated Universal Times (UTC): 0000, 0300, 0600, 0900, 1200, 1500, 1800, 2100.
- c. Additional Information – Detailed information about the NDFD is also [available online](#)