## **CNRFC Web Data Archive Directory and File Structure**

## Overview:

The CNRFC maintains a data archive of many text, graphical, and gridded datasets on our website. The primary method to access this data is through an interactive interface that simplifies the process of downloading specific products. This can be done for individual files ("Search for Product" mode) or for a range of dates for a given product ("Batch Download" mode). However, for more advanced users, sometimes it may be necessary to use programming tools (wget, cURL, etc.) to download datasets, whether manually or automatically. In order to facilitate downloading via programming tools, this document describes the paths and naming conventions for the files in the CNRFC Web Data Archive.

## **Location of CNRFC Web Data Archive Interface:**

- https://www.cnrfc.noaa.gov/arc\_search.php
- Alternatively, the page can be found on the menu under "Research / Outreach > Data Archive".

## **Details:**

Files in the archive can be found in this generic path:

https://www.cnrfc.noaa.gov/archive/yyyy/Mmm/cproductDir>/<filename>
where:

- yyyy is 4-digit year (e.g., 2022)
- Mmm is 3-character month abbreviation (e.g., Jan, Feb, Mar, etc.)
- productDir>
   is a product-specific directory
- <filename> is the specific file being requested. It contains a product name, a date or timestamp
  that corresponds to either a valid time for a product or the time a product was issued, and an
  optional file extension, which varies by product. Text products in the archive tend to not have
  explicit extensions.

The cyroductDir> and <filename> portions are specific to each individual product and require further investigation to determine. To find this information, follow the steps below. In our example, we'll find the path to the 6-hour Quantitative Precipitation Estimate (QPE) grid for the period May 1, 2022 from 06 to 12 UTC.

- 1. Navigate to the <u>CNRFC Web Data Archive Interface</u>.
- 2. Select the desired product from the drop-down menu. In our example, we'll select "netCDF grids QPE (6-Hour Observed Precipitation) [06/2003\*]".
- 3. Click the "Search CNRFC Archive" button.
- 4. The screen that loads will contain the needed pieces of the URL. Refer to the screenshot on the next page for an example.
  - a. The productDir> is shown as the last subdirectory in the path in the "Index of" line near the top
    of the page. See the red circled area of the screenshot for the QPE example, in which the
    productDir> is "netcdfqpe".

- b. A list of filenames available for the selected month will appear in the main portion of the window. In our example (circled in blue), the <filename> is "qpe.20220501\_1200.nc.gz". More generically, the file naming convention is "qpe.YYYYMMDD\_HHMM.nc.gz". Typical date/time stamps will have some or all of the following parts in the convention:
  - i. YYYY is 4-digit year (e.g., 2022)
  - ii. MM is 2-digit month (e.g., 05 for May)
  - iii. DD is 2-digit UTC day (e.g., 01 for the 1<sup>st</sup>)
  - iv. HHMM is the UTC hour and minute (ending time for precipitation data) (e.g., 1200 for 12:00 UTC)

HYDROLOGY	WEATHER	CLIMATE	RESEARCH / OUTREACH	LINKS	SEARCH	ABOUTUS
f /archive/2022/ ere for informat			es in this archive.			
70 101 1111011114	ion about in		SEARCH RESULTS			
_	Product Nar	ne	Last Modified (UTC)		Size	
	qpe.202204	430_1800.nc.gz	01-May-22 14:01		10.2 KB	
	qpe.20220	501_0000.nc.gz	01-May-22 14:01		7.8 KB	
	qpe.20220	501_0600.nc.gz	01-May-22 14:01		13.8 KB	
	qpe.20220	501_1200.nc.gz	01-May-22 14:01		13.8 KB	
	qpe.20220	501_1800.nc.gz	02-May-22 13:47		12.8 KB	
	qpe.20220	502_0000.nc.gz	02-May-22 13:47		4.7 KB	
		502_0600.nc.gz	02-May-22 13:47		1.0 KB	
	qpe.20220	502_1200.nc.gz	02-May-22 13:47		5.5 KB	
	qpe.20220	502_1800.nc.gz	03-May-22 17:21		10.4 KB	
	qpe.20220	503_0000.nc.gz	03-May-22 17:21		9.8 KB	
	qpe.20220	503_0600.nc.gz	03-May-22 17:21		8.6 KB	
	qpe.20220	503_1200.nc.gz	03-May-22 17:21		2.2 KB	
	qpe.20220	503_1800.nc.gz	04-May-22 13:25		11.3 KB	
	qpe.20220	504_0000.nc.gz	04-May-22 13:25		6.2 KB	
	qpe.20220	504_0600.nc.gz	04-May-22 13:25		1.0 KB	
	qpe.20220	504_1200.nc.gz	04-May-22 13:25		1.0 KB	
	qpe.20220	504_1800.nc.gz	05-May-22 14:17		1.0 KB	
	qpe.20220	505_0000.nc.gz	05-May-22 14:17		1.0 KB	
	qpe.20220	505_0600.nc.gz	05-May-22 14:17		1.0 KB	
	qpe.20220	505_1200.nc.gz	05-May-22 14:17		1.4 KB	
	qpe.20220	505_1800.nc.gz	06-May-22 14:05		9.6 KB	

So in our example, the full file path to the QPE file being requested is as follows:

https://www.cnrfc.noaa.gov/archive/2022/May/netcdfqpe/qpe.20220501 1200.nc.gz

The corresponding generic path to the QPE files is as follows:

https://www.cnrfc.noaa.gov/archive/YYYY/Mmm/netcdfgpe/gpe.YYYYMMDD HHMM.nc.gz

**Special note:** A few products, such as QPE in the example above, may contain a file in an unexpected monthly directory due to the way the files are uploaded. For example, the last QPE file in April (20220430 1800) is found in the May 2022 directory because it was uploaded on the morning of May 1.

Please contact <a href="mailto:cnrfc.webmaster@noaa.gov">cnrfc.webmaster@noaa.gov</a> with any questions. Thank you!