

GHCN (Global Historical Climatology Network)-Daily

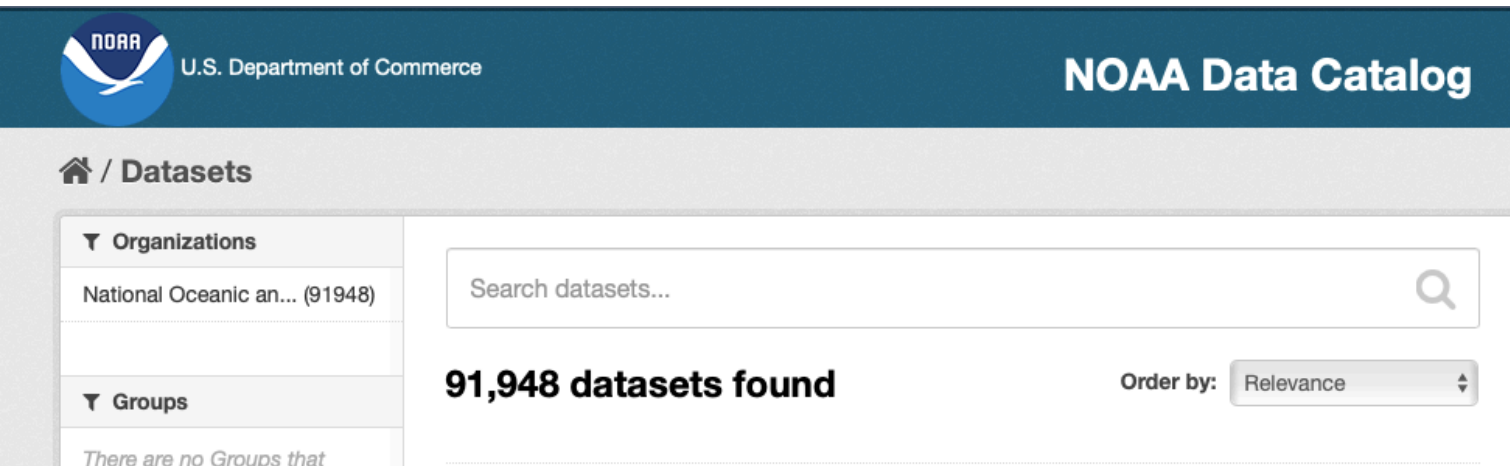
Madison Brook

NOAA

- National Oceanic and Atmospheric Administration
- Administers many datasets based on climate/weather/oceans



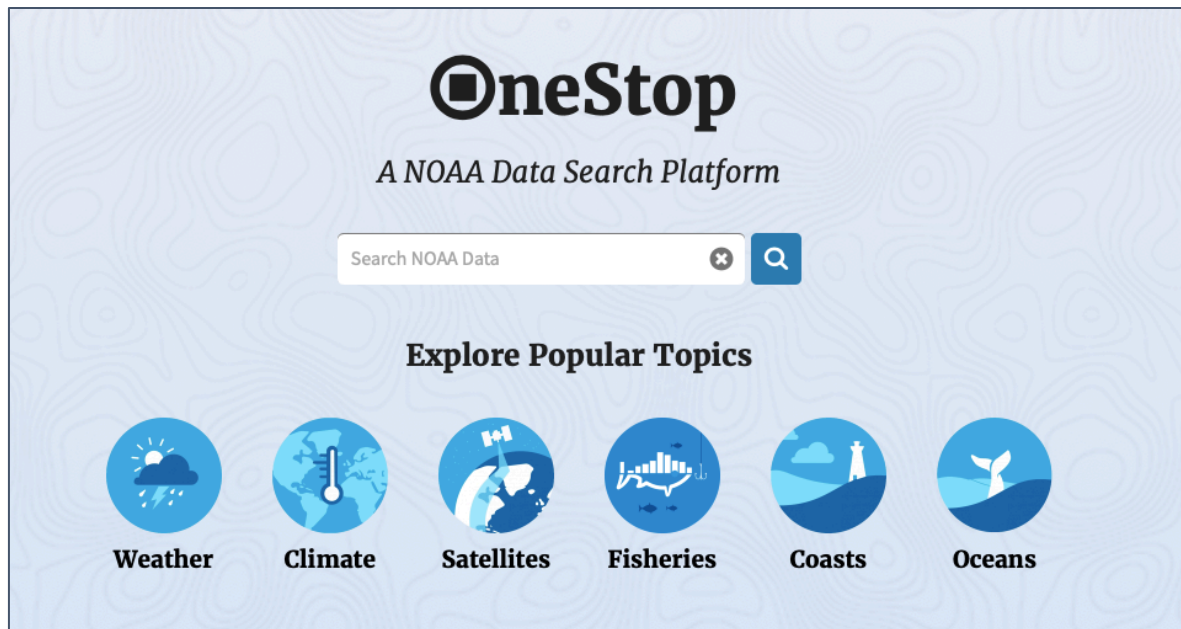
<https://data.noaa.gov/dataset/>



The screenshot shows the NOAA Data Catalog interface. At the top, there is a dark blue header with the NOAA logo and the text "U.S. Department of Commerce" on the left, and "NOAA Data Catalog" on the right. Below the header, a light gray bar contains a home icon and the text "/ Datasets". The main content area is divided into two columns. The left column has a sidebar with "Organizations" (listing "National Oceanic an... (91948)") and "Groups" (with a note "There are no Groups that"). The right column features a search bar with the placeholder "Search datasets...", a magnifying glass icon, and the text "91,948 datasets found". Below the search bar, there is an "Order by:" dropdown menu currently set to "Relevance".

Lots of options!

<https://www.ncdc.noaa.gov/cdo-web/datasets>



The screenshot shows the NOAA OneStop Data Search Platform homepage. The background is a light blue with a subtle topographic map pattern. At the top center, the "OneStop" logo is displayed in a large, bold, black font, with the tagline "A NOAA Data Search Platform" underneath it. Below the tagline is a search bar with the placeholder "Search NOAA Data", a clear button (X), and a search button (magnifying glass). Underneath the search bar, the text "Explore Popular Topics" is centered. Below this text are six circular icons representing different data categories: Weather (sun and cloud), Climate (thermometer), Satellites (satellite), Fisheries (fish), Coasts (lighthouse), and Oceans (wave). Each icon is accompanied by its respective label in a bold, black font.

<https://data.noaa.gov/onestop/>

Climate Data Online

The datasets listed in this section are accessible within the Climate Data Online search interface.

- ⊕ Daily Summaries
- ⊕ Global Marine Data
- ⊕ Global Summary of the Month
- ⊕ Global Summary of the Year
- ⊕ Local Climatological Data
- ⊕ Normals Annual/Seasonal
- ⊕ Normals Daily
- ⊕ Normals Hourly
- ⊕ Normals Monthly
- ⊕ Precipitation 15 Minute
- ⊕ Precipitation Hourly
- ⊕ Weather Radar (Level II)
- ⊕ Weather Radar (Level III)

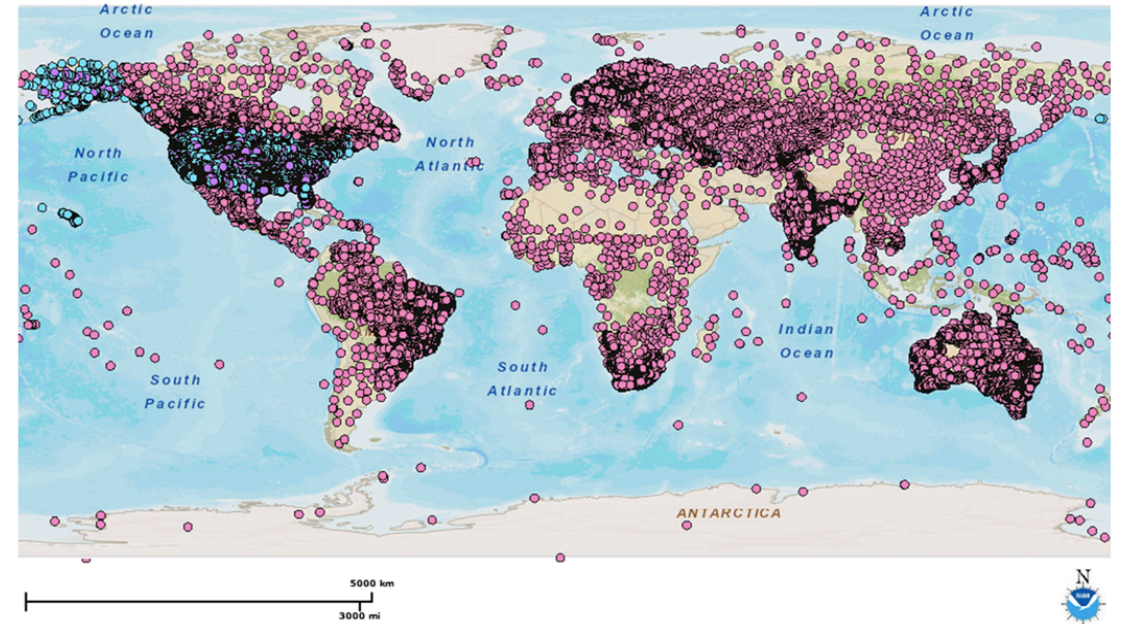
GHCN (Global Historical Climatology Network)-Daily

- Historical to current database of climate/weather variables
 - Temp, precip, snow depth, cloudiness, ice thickness, etc.
- Daily data
 - Also has monthly and yearly options
- Specific to station locations

Menne, M.J., I. Durre, R.S. Vose, B.E. Gleason, and T.G. Houston, 2012: An overview of the Global Historical Climatology Network-Daily Database. *Journal of Atmospheric and Oceanic Technology*, 29, 897-910, doi:10.1175/JTECH-D-11-00103.1

GHCN

- Takes station data from multiple sources worldwide
 - National Climatic Data Centre for USA data
 - Global Climate Observing System for international data
 - World Meteorological Organization (WMO)
 - Various other government exchanges



Index of /data/daily-summaries/access

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
<hr/>			
Parent Directory		-	
ACW00011604.csv	2020-07-28 08:00	39K	
ACW00011647.csv	2020-07-28 08:00	524K	
AE000041196.csv	2020-07-28 08:00	2.3M	
AEM00041194.csv	2020-07-28 08:00	1.6M	
AEM00041217.csv	2020-07-28 08:00	1.6M	
AEM00041218.csv	2020-07-28 08:00	1.1M	
AF000040930.csv	2020-07-28 08:00	299K	
AFM00040938.csv	2020-07-28 08:00	751K	
AFM00040948.csv	2020-07-28 08:00	1.2M	
AFM00040990.csv	2020-07-28 08:00	837K	
AG000060390.csv	2020-07-28 08:00	3.6M	
AG000060590.csv	2020-07-28 08:00	4.0M	
AG000060611.csv	2020-07-28 08:00	2.6M	
AG000060680.csv	2020-07-28 08:00	2.7M	
AGE00135039.csv	2020-07-28 08:00	3.1M	
AGE00147704.csv	2020-07-28 08:00	1.1M	
AGE00147705.csv	2020-07-28 08:00	2.4M	
AGE00147706.csv	2020-07-28 08:00	1.0M	

<https://www.ncei.noaa.gov/data/daily-summaries/access/>

meteo_nearby_stations()

- In “rnoaa” package
- Get all stations within given radius
- Get nearest x number of stations

Hopefully useful links

Global Historical Climate Network Daily

<https://www.ncdc.noaa.gov/ghcn-daily-description>

<https://www1.ncdc.noaa.gov/pub/data/ghcn/daily/readme.txt>

<https://www.ncei.noaa.gov/data/daily-summaries/>

<https://www.ncei.noaa.gov/metadata/geoportal/rest/metadata/item/gov.noaa.ncdc%3AC00861/html>