

Searching for Climate Data
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November 16, 2011

FORECASTS

- 1.) NWS 7-Day Forecast Eastern Dutchess County (Millbrook, NY)
<http://forecast.weather.gov/MapClick.php?CityName=Millbrook&state=NY&site=ALY&textField1=41.7843&textField2=-73.6947>
- 2.) NWS Forecast for US
www.weather.gov
 - On upper left hand corner of page type in zip code or City, ST where it says “City, ST”, then click GO.
- 3.) The Weather Channel
www.weather.com
 - On upper left hand corner type in your zip code or City, ST, then click FIND WEATHER.
- 4.) Accuweather
www.accuweather.com
 - On upper center type in your zip code or City, ST, then click GO
- 5.) Weather Underground
www.wunderground.com
 - On upper center type in your zip code or City, ST, then click SEARCH

REAL-TIME & RECENT DATA

- 1.) COOP National Weather Service Cooperative Observer Network
(Precipitation, Max and Min Temperature, and Snowfall for 24-hrs)
<http://www.nws.noaa.gov/om/coop/>
 - On left hand side, click on Local Data.
 - Click on the blue dot in New York for Albany.
 - On the left hand side under “Hydrology”, click Local Hydrology
 - Under Observations, click Daily Hydrological.

(24-hr or 2 – day tabular data)

 - On the left hand side, click on Local Data.
 - Click on the blue dot in New York for Albany.
 - On the left hand side under “Current Conditions”, click Observations.
 - Under Local ASOS Observations, click on 24-hour or 2-days for the city that you need.
- 2.) MesoWest

(For current specific weather parameter for the whole state)

<http://mesowest.utah.edu/index.html>

- Click on the state that you want the data from
- On left hand side by Network, choose “All Networks”.
- Click Map It! In red box
- If you want a different parameter, on the left hand side under Overlay 1, choose the parameter you want.

3.) MesoWest

(Current Conditions for a location)

- Click on the state that you want data from
- At the top of the page choose the Region you want.
- At the top of the page choose the Product “Current Weather Summary” and click GO.
- At the top of the webpage, you have the option of selecting the time and data of the observations. For more stations, next to settings, select “All Networks”, then click “Update Network/Region Settings”.
- Scroll down the page to find the station that you want from a county. Click on the station.
- This shows you the current weather conditions at the top of the page and past conditions toward the bottom.

4.) NERON NOAA’s Environmental Real-Time Observation Network

(Modernization of COOP sites) (Alternative way for directions for #3)

http://www.ngdc.noaa.gov/nndc/struts/results?op_0=eq&v_0=National%20Weather%20Service-NOAAs%20Environmental%20Real%20Time%20Observation%20Network&op_1=l&v_1=&t=400239&s=51&d=307&d=305&d=301&d=303&d=416&d=304&d=302&d=320&d=308&no_data=suppress&sourceId=101717

- Looking at the map, click on the location you want the data for.
- A white box will pop up on the map for the location you picked.
- Click on the link next to the Station ID. This shows you information about the location.
- Click on the grey button at the top middle of the page, telling you to go the Current Data for the station chosen.
- If there is no current data for the station chosen, you can select from a list of other stations on the page.

5.) Climate Reference Network

(Current Conditions)

<http://www.ncdc.noaa.gov/crn>

- On the left hand side up Data and Products, click on Observations.
- Between where it says All Stations and State on the left hand side, you can choose the state that you want to find a station from.

- After selecting your state, click on the station you would like.
- On the left hand side, you can choose what you would like to see for your station Examples are Last 12 hours, single hour, daily summary

6.) CRN site here at Cary Institute (Millbrook, NY)

<http://www.ncdc.noaa.gov/crn/station.htm?stationId=1118>

7.) Meteorological Assimilation Data Ingest System (MADIS)

<http://madis.noaa.gov/>

- Go to Surface Data Display http://madis.noaa.gov/sfc_display/
- With your mouse highlight a rectangle to zoom.
- Continue to do this to zoom further in.
- Highlight any dot to see current conditions for station.
- Click to get most recent data.

8.) Aviation Digital Data Service (ADDS)

<http://aviationweather.gov/adds/>

For most current conditions

- Click on METARs above the map of the United States
- On the right of the map, you can enter the station in which you want the data for. Examples of local stations are Poughkeepsie (kpou), Orange County Airport (kmgj), Albany (kalb)
- To the right, select Translated
- Click Submit

For current radar

- Click on the radar tab to the top right
- For the local Hudson valley area, you can either click on ENK or OKX on the United States map.
- On the left hand side there are options in which you can view “estimated” rainfall totals and areas that received precipitation within the past hour.
- To observe where precipitation is currently occurring, under Reflectivity click on Base
- If you want to see a loop of precipitation, click on Loop to the right of Base.
- If you want to see estimated rainfall totals, click on either 1-hr total or storm total under Rainfall. If you want to see a loop, click on Loop to the right of either 1-hr total or storm total.

For current satellite (cloudiness)

- Click on the Satellite tab on the top right.
- You can choose the imagery you would like to see. Most likely choice would be “visible”.
- You can also choose from three different displays, latest image, loop-small, loop-big.
- Click on the region you want to view. ALB is used for the northeast US.

OTHER CURRENT WEATHER INFO

1.) National Hurricane Center (NHC) / Tropical Prediction Center (TPC)

<http://www.nhc.noaa.gov/>

You can view the current conditions and forecasts of tropical systems in the Pacific and Atlantic Oceans.

- If there are no named systems, the NHC will show percentages of certain tropical waves becoming a named system within the next 48hrs on the map.
- Hovering over the area will allow you to read what is forecasted for the specific tropical wave.
- Clicking on a named storm will allow you to view the current conditions and the predicted path of the system
- A white cone from 3 to 5 days is issued once a tropical system is named.

2.) Hydrological Prediction Center (HPC)

<http://www.hpc.ncep.noaa.gov/>

You can view current weather maps, surface analysis, national forecast maps, and QPF (Quantitative Precipitation Forecast)

- Click on QPF map on the bottom left to view precipitation forecasts
- At the top of the page, there are links for precipitation totals for each day or for a 5 day total
- Click on the day or days of total precipitation that you would like to see.
- Then click on one of the maps to see the forecasted amount of precipitation.

3.) Storm Prediction Center (SPC)

<http://www.spc.noaa.gov/>

- Click on the Conv. Outlooks tab above the northwestern United States. This will allow you to view outlooks for as far as 8 days out.
- Click on the day you would want to view.
- If you click on Current Day 1 Outlook, then you can view the probabilities, or hail, wind in excess of 58mph and tornadoes
- If you click on Current Day 2 Outlook or longer, then you can view categories and probabilities.
- By clicking on the categorical tab, you can view the risk of seeing severe thunderstorms, slight, moderate, or high
- By clicking on the probabilistic tab, you can view the probability of seeing severe thunderstorms, from 5% to significant.

4.) NOAA Satellite Images

<http://www.nhc.noaa.gov/satellite.shtml>

- Scroll down to middle of the page and click on Atlantic Views
- On this page, you have a choice of which map you would like to view. Click on the map.

- Under GOES Imagery at the center of the page, you can either view a single image or a loop of images. Also these images can be viewed with or without latitude or longitude lines.
- The choices of imagery are Visible (similar to look of clouds in the sky), Shortwave (shown in colors, highest clouds are brighter in color), Water Vapor (shows amount of moisture in the air)

CLIMATE DATA

1.) National Climatic Data Center (NCDC)

<http://www.ncdc.noaa.gov/oa/ncdc.html>

Note that some data from NCDC costs a nominal fee. Our library may be able to help with small data purchases; see Amy Schuler for this. Likewise, if you need help finding data, Vicky Kelly may be able to help.

2.) NCDC Most Popular Products/Free Data

<http://www.ncdc.noaa.gov/oa/mpp/freedata.html>

- Click on free data under Most Popular Products/Free Data
- Under Free Data B, click Individual Station Original
- Your access is free, so you can choose the state of the station
- Click next
- Choose the station you want to view and click next
- Select the year and month and click next
- Data record sheets will have to be shown as a PDF file

3.) Climate Reference Network

<http://www.ncdc.noaa.gov/crn/?jsessionid=5226A9CFD772136E6CB8BA230C97E14E.lwf2>

- Click on reports under Data and Products
- Select Element Listing under Report Type
- Select a station
- Select dates & elements you're interested in
- Choose file type and click submit. It may take awhile to generate the report.

4.) Satellite Images (NCDC Archived Satellite Images)

<http://www.ncdc.noaa.gov/oa/satellite.html>

This site allows for you to view many different satellite data products. An example of Historical Events is described below.

- Scroll down to Historical Significant Event Imagery (HSEI)
- Click on Quick Search on the left
- Select the type of event you want to view
- Select the year (s) on the right
- Click Submit Search
- Click on the event you want to view

- 5.) Doppler Radar Data (NCDC Archive Data & Images)
<http://www.ncdc.noaa.gov/oa/radar/radarresources.html>

You will have to order radar data

- Click on Download/View Radar Data
- Click on Download Data From NCDC Archive
- Click on NEXRAD Inventory Search
- Click on a blue dot for the radar you want
- Choose the day, month and year
- Choose Level II (Base Data)
- Click Create Graph
- Select the start and end times
- Click Order Data

NATIONAL, REGIONAL & STATE CLIMATOLOGISTS

- 1.) NOAA National and Regional Climate Centers
<http://www.wrcc.dri.edu/rcc.html>
- 2.) American Association of State Climatologists
<http://www.stateclimate.org>
 - Northeast Regional Climate Center (NRCC)
<http://www.nrcc.cornell.edu/>

OTHER SITES OF INTEREST

- 1.) NOAA
<http://www.noaa.gov/>
- 2.) NWS
<http://www.nws.noaa.gov/>
- 3.) SNOTEL SNOwpack TELemetry for western US, USDA, Natural Resources Conservation Service
<http://www.wcc.nrcs.usda.gov/snotel/>
Good website to measure snow water equivalent in the western and Rocky Mtn states.
 - On the middle of the page under Snow Water Equivalent, click data.
 - Under Current, click Snow Water Equivalent Data Tables
 - Click on the state you want and click select
 - Select your site
- 4.) SCAN Soil Climate Analysis Network, USDA, Natural Resources Conservation Service
<http://www.wcc.nrcs.usda.gov/scan/>
 - You can either click on one of the states in blue or select a state from the drop down menu on the upper right. (states in grey do not have SCAN access sites.

- Click on the city within the state you pick or select a site from the drop down menu.

5.) Community Collaborative Rain, Hail & Snow Network (CoCoRaHS)

www.cocorahs.org

- To see all of the precipitation reports across the US, click on the top US map.
- You can select the map type, map location, date, and colors.
- Click on the area or state that you want to view.
- Click on the area that you want to view to zoom in and see precipitation totals.

- * If you know what state you want to view, on that main page, click on the state on the second map.
- To view a larger map, click on View Large Map below the map.
- Click on the area that you want to view to zoom in and see precipitation totals.

6.) Remote Automated Weather Stations (RAWS)

<http://raws.fam.nwcg.gov/>

7.) AWOS Aviation Weather Observation System

<http://www.allweatherinc.com/aviation.html>

8.) NWS (National Weather Service)

<http://www.nws.noaa.gov/asos/>

9.) CDMP- Climate Database Modernization Program

<http://www.ncdc.noaa.gov/oa/climate/cdmp/cdmp.html>

(A project to bring weather data from +100 years ago online)

10.) National Resources Conservation Service (NRCS)

National Water & Climate Center

<http://www.wcc.nrcs.usda.gov/>

Water Supply

You can view water supply forecasts, reservoirs, and surface Water Supply Index

- By clicking on water supply forecasts you can view reports, maps, graphs, and experimental water supply forecasts

Climate Monitoring

- By clicking on SNOTEL Data, you can view real time snow reports

Climate Interpretation

- You can view Climate Analysis, PRISM (model), Climate Data, and General Information

11.) NASA Marshall Space Flight Center Earth Science Office (satellite images)
<http://www.ghcc.msfc.nasa.gov/>

You can view many different satellite images of North and South America

- Click on the large satellite image on the center of the webpage.
- Choose a satellite image of US or northern/southern hemisphere

12.) The Dapper Data Viewer

“The Dapper Data Viewer (aka DChart) allows you to visualize and download in-situ oceanographic or atmospheric data from a [Dapper OpenDap](#) server. Features include an interactive map that is draggable, an in-situ station *layer* that allows you to select data stations, and a plot window that allows you to plot data from one or more stations. Three plot types are supported (profile, property-property, and time series) and users can interact directly with the plot to pan or zoom in and out.”

<http://www.epic.noaa.gov/epic/software/dchart/>

ULTRA VIOLET AND SOLAR RADIATION

1.) Soil Moisture Active Passive Mission (SMAP) NASA

<http://smap.jpl.nasa.gov/>

2.) USDA, UVB Monitoring and Research Program

http://uvb.nrel.colostate.edu/UVB/uvb_network.jsf

3.) NOAA-EPA Brewer Spectrophotometer UV and Ozone Network

<http://esrl.noaa.gov/gmd/grad/neubrew/>

- You can view the ozone level and UV for different locations
- By clicking on one of the 6 stations, you can view site information and current readings
- Clicking on Total Column Ozone Comparison Tool will allow you to view station ozone, instrument ozone, and tropospheric ozone

4.) NOAA Atmospheric Radiation Measurement

<http://www.arm.gov/>

5.) National Center for Atmospheric Research (NCAR)

Earth System Laboratory (ESL)

<http://www.nesl.ucar.edu/data/datasets.php>

6.) University of Oregon Solar Radiation Monitoring Laboratory

<http://solardat.uoregon.edu/index.html>

7.) AERONET <http://aeronet.gsfc.nasa.gov> (Aerosol Robotic Network) is a

federation of ground-based remote sensing aerosol networks established by

NASA and PHOTONS (Univ. of Lille 1, CNES, and CNRS-INSU) and is greatly expanded by collaborators from national agencies, institutes, universities, individual scientists, and partners. The program provides a long-term, continuous and readily accessible public domain database of aerosol optical, microphysical and radiative properties for aerosol research and characterization, validation of satellite retrievals, and synergism with other databases. The network imposes standardization of instruments, calibration, processing and distribution.

STATION IDENTIFICATION

KPOU = Poughkeepsie, NY

KALB = Albany, NY

KMGJ = Montgomery, NY (Orange County airport)

KSWF = Newburgh, NY (Stewart International Airport)