

Navigating ^{NEW} cli-MATE



MRCC
Midwestern Regional
Climate Center

Daily Data → Single Station	
Daily Station Info	
General Info	<ul style="list-style-type: none"> Click the Station Name to expand details, including station metadata (More Info button) and to change station locations (Select Daily Station button) Select stations by state, county, climate division, or station ID Map search lets you filter stations by network, variable, active/inactive stations <ul style="list-style-type: none"> Map searchable by address, city, or zip code Overlay NWS CWA boundaries, climate divisions, and crop reporting districts
Daily Products	
Daily Climate Data Between Two Dates	<ul style="list-style-type: none"> Historical data observations for each day of the selected date range Tabular data and data plots available
Degree Days	<ul style="list-style-type: none"> Full suite of degree day data, including Heating Degree Days, Cooling Degree Days, Growing Degree Days, Modified Growing Degree Days, Stress Degree Days and Freezing Degree Days Customizable for non-standard degree day bases and start dates
This Date In History	<ul style="list-style-type: none"> See all data available for one day or a holiday in a sortable table
Almanac for a Day	<ul style="list-style-type: none"> Average and record highs & lows 1991-2020 NCEI Daily Climate Normals
Threshold Search for Daily Data	<ul style="list-style-type: none"> Find all dates a certain temperature, precipitation, or snowfall threshold criterion is met (can accommodate multiple search criteria) Chronological list of dates, monthly counts, or a runs of Days meeting the threshold
Multi-Day Extremes	<ul style="list-style-type: none"> Find extreme periods of temperature, snowfall and precipitation
Ranking of Daily Climate Data	<ul style="list-style-type: none"> Search the ranking of temperature, precipitation, and snowfall data in ascending or descending order for an individual date
Single Variable Data	<ul style="list-style-type: none"> Display a table or plot of temperature, precipitation, or snowfall data Option to display observation time, 1991-2020 normal, departure from normal, and accumulated values
Keetch-Byram Drought Index (KBDI)	<ul style="list-style-type: none"> Calculates daily KBDI based on precipitation and temperature data
Monthly Products	
Monthly Climate Data Between Specific Months	<ul style="list-style-type: none"> Historical daily observations aggregated into monthly values Option to include monthly extremes such as greatest single-day precipitation for the month and highest/lowest temperature for the month
Monthly Ranking	<ul style="list-style-type: none"> Search the ranking of temperature, precipitation, and snowfall data in ascending or descending order for an individual date
Thermograph	<ul style="list-style-type: none"> Provides a table and data plot with high & low daily temperatures compared to normal values as well as daily extremes
Frequency Distribution	<ul style="list-style-type: none"> Find the frequency that temperature, precipitation and snowfall amounts occur during certain months or during the calendar, water or snowfall years
Monthly NCEI Normals	<ul style="list-style-type: none"> View monthly and annual normals for temperature, precipitation, cooling degree days, and heating degree days
Seasonal Products	
Seasonal Statistics	<ul style="list-style-type: none"> Historical first and last dates of growing, snow and frost seasons in a sortable table Length of each season provided
Freeze Probability	<ul style="list-style-type: none"> Provides likelihoods for late spring or early fall freeze events by temperature threshold
Annual Products	
Annual Rankings	<ul style="list-style-type: none"> Similar to monthly and daily ranking
Annual Climate Data Between Specific Years	<ul style="list-style-type: none"> Historical daily observations aggregated into annual values
Annual Climate Summary By Month	<ul style="list-style-type: none"> Display a table of monthly data sorted by year

Daily Data → Multi-Station	
Summary	<ul style="list-style-type: none"> Summarizes precipitation, snowfall, and mean temperature across multiple stations in a state or climate division
Temperature	<ul style="list-style-type: none"> Average of maximum, minimum, and mean temperatures for a selected time period Includes departures from normal and the highest maximum and lowest minimum for the selected time period
Precipitation	<ul style="list-style-type: none"> Total precipitation and snowfall during a selected time period Includes departures from normal and single-day maximums for the selected time period
Daily Data → County	
General Info	<ul style="list-style-type: none"> Data from all stations in a county for one climate variable Select individual station networks
Hourly Data* → Single Station	
Hourly Station Info	
General Info	<ul style="list-style-type: none"> Click the Station Name to expand details, including station metadata (More Info button) and to change station locations (Select Hourly Station button) Station selection works similar to daily stations (noted above)
Hourly Products	
Hourly Data Lister	<ul style="list-style-type: none"> Hourly station observations available for a station's period of record
Threshold Search for Hourly Data	<ul style="list-style-type: none"> Similar to daily threshold search (noted above)
Hourly Data Summarized by Day	<ul style="list-style-type: none"> Hourly observations are aggregated into a daily summary for each variable, including temperature, dew point, humidity, pressure, wind, and precipitation
Hourly Data Frequency Distribution	<ul style="list-style-type: none"> Similar to daily frequency distribution (noted above)
Wind Rose	<ul style="list-style-type: none"> Customizable wind rose plots for any period for a station Option to Invert wind rose plot is available
Hourly Data* → Multi- Station	
Multi-Day Summaries for All Stations in a State	<ul style="list-style-type: none"> Summarizes temperature, wind, humidity, etc. across multiple stations within a state for the selected time period
State & Divisional Data	
Snapshot	<ul style="list-style-type: none"> Data aggregated to climate division, state, or region for a single selected time period
Monthly by Year	<ul style="list-style-type: none"> Monthly data sorted by year for climate division, state, or region for a selected date range
Chronological Listing	<ul style="list-style-type: none"> Data aggregated to climate division, state, or region for a selected time period across multiple years, displayed in chronological order
Ranked Listing	<ul style="list-style-type: none"> Similar to ranking tool for stations
Maps (only in legacy cli-MATE, coming soon in new cli-MATE)	
MRCC Gridded Data → Specific period	<ul style="list-style-type: none"> Plot actual values, departure from mean, and percent of mean for a period Domains include RCC, RFC, NIFC & NWS regions, states, and NWS CWA's
MRCC Gridded Data → Long-Term Avg Maps	<ul style="list-style-type: none"> Mapped averages of precipitation, temperature and snowfall
Interpolated Station Data	<ul style="list-style-type: none"> Customize mapping dates, variables, station networks, and map features

* Hourly observations based on raw (non-quality controlled) decoded METAR data from the ACIS-hourly database

Download 

← Look for this button on any product results page to download a CSV data file.

Explore cli-MATE: <http://mrcc.purdue.edu/newclimate/home>

Email: mrcc@purdue.edu

MRCC website: <http://mrcc.purdue.edu>