# Navigating cli-MATE

<table>
<thead>
<tr>
<th>Hourly Data (Station Data → Hourly)</th>
<th></th>
</tr>
</thead>
</table>
| **Unedited Hourly** | ○ ULCD and QCLCD from ASOS & AWOS stations nationwide (1996-Present)  
○ Select station either by city or airport call sign  
○ Multiple station daily summaries for one or multiple days (Midwest states only) |
| **METAR – Raw or Decoded** | ○ Data available from 2007-Present  
○ Download up to 1 month of raw or 1 day of decoded data at a time |
| **CRN Data** | ○ Data from sites nationwide  
○ Raw hourly data  
○ Daily & monthly temperature and precipitation summaries |

<table>
<thead>
<tr>
<th>Daily Data Station Selector</th>
<th></th>
</tr>
</thead>
</table>
| **General Info** | ○ Use “Select Station” button on the top left to enter the station selector  
○ Select stations by station ID, climate division, or by State/County  
○ Nationwide GIS map selector  
  ▪ Select daily stations by network  
  ▪ GIS map searchable by address, city or zip code  
  ▪ Includes zip code overlay layer. (Other layers coming soon)  
  ▪ More Info tab includes a station’s period of record and inventory of available data |

<table>
<thead>
<tr>
<th>Daily Data (Station Data → Daily)</th>
<th></th>
</tr>
</thead>
</table>
| **Between Two Dates** | ○ Raw historical station data  
○ Plot data or download in a csv file |
| **Daily Degree Data** | ○ 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 to include non-standard degree day bases and accumulation start dates.  
○ Tabular data and data plots available |
| **This Date In History** | ○ See all data available for one day in a sortable table |
| **Almanac for a Day** | ○ Average and record highs & lows  
○ Daily 1981-2010 NCDC Climate Normals |
| **Threshold Search** | ○ Find all dates above a certain temperature, precipitation or snowfall threshold.  
○ Gives a chronological list of dates, monthly counts, or a runs of Days meeting the threshold |
| **Ranking** | ○ Search the ranking of temperature precipitation and snowfall data in ascending or descending order for an individual date. |
| **Keetch-Byram Drought Index (KBDI)** | ○ Get the KDBI for an individual days in a sortable table  
○ Graphs also available |
| **Multi-Station Data** | ○ See data for multiple stations for a variable over a period |

<table>
<thead>
<tr>
<th>Monthly Data (Station Data → Monthly)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Specific Months</strong></td>
<td>○ Get monthly station data for multiple variables in a sortable table</td>
</tr>
<tr>
<td><strong>Monthly NCDC Normals</strong></td>
<td>○ Available in either graph or tabular form</td>
</tr>
</tbody>
</table>
| **Ranking** | ○ Similar to daily Ranking  
○ Allows user to determine how much missing data is permissible |
| **Thermograph** | ○ See high & low temperature compared to normal values as well as extremes |

<table>
<thead>
<tr>
<th>Seasonal Data (Station Data → Seasonal)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree Days, Ranking &amp; Thermograph</strong></td>
<td>○ These products are also under the Seasonal Category</td>
</tr>
<tr>
<td><strong>Freeze Probabilities</strong></td>
<td>○ Probabilities of later spring freeze or earlier fall freeze at various temperatures</td>
</tr>
</tbody>
</table>
| **Seasonal Statistics** | ○ Historical first and last dates of growing, snow and frost seasons in a sortable table  
○ Length of each season |

*April 2015*
### Annual Data (Station Data ➔ Annual)

<table>
<thead>
<tr>
<th>Summary By Month</th>
<th>Monthly data sorted by year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranking</td>
<td>Similar to monthly and daily Ranking</td>
</tr>
<tr>
<td></td>
<td>Allows user to determine how much missing data is permissible</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Data Between Specific Years</th>
<th>Sortable table of data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Data plots</td>
</tr>
<tr>
<td></td>
<td>Selectable year types (calendar, water, snow)</td>
</tr>
</tbody>
</table>

### County Data

<table>
<thead>
<tr>
<th>General Info</th>
<th>Data from all stations in a county for one climate variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select individual station networks</td>
</tr>
</tbody>
</table>

### Climate Division Data

<table>
<thead>
<tr>
<th>General Info</th>
<th>Based off of the nClimDiv product from NCDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snapshot</td>
<td>Monthly climate division data for each state for a month</td>
</tr>
<tr>
<td>Monthly by Year</td>
<td>All climate division monthly data for a specific variable for the period selected.</td>
</tr>
<tr>
<td>Chronological Listing</td>
<td>Gives temperature and precipitation data and departures from normal</td>
</tr>
<tr>
<td>Ranked Listing</td>
<td>Similar to ranking tool for stations</td>
</tr>
<tr>
<td>Estimated Between Two Dates</td>
<td>Estimates temperature, precipitation and degree days for states in the Midwest only.</td>
</tr>
</tbody>
</table>

### State Data

<table>
<thead>
<tr>
<th>Snapshot, Monthly by Year, Chronological Listing, and Ranked Listing</th>
<th>These products available for Climate Division data are also available for states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Average Precipitation and Temperature</td>
<td>Available for Midwest states for the previous month</td>
</tr>
</tbody>
</table>

### Maps of Data

<table>
<thead>
<tr>
<th>MRCC Gridded Data ➔ Specific period</th>
<th>Similar to the maps found in weekly and monthly reports on the Midwest Climate Watch of NWS COOP data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plot actual values, departure from mean and percent of mean for a period</td>
</tr>
<tr>
<td></td>
<td>Domains include RCC, RFC, NIFC &amp; NWS regions, states, and NWS CWA’s</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MRCC Gridded Data ➔ Long-Term Average Maps</th>
<th>Mapped averages of precipitation, temperature and snowfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpolated Station Data</td>
<td>Selectable by individual station network(s)</td>
</tr>
<tr>
<td></td>
<td>Higher resolution than Specific Period Maps, but slower load times</td>
</tr>
</tbody>
</table>

### Charts and Graphs

| General Info | Convenient menu for all cli-MATE products that have charts or graphs available |

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For more information or questions about cli-MATE, please call 217-244-8226 or email mrcc@isws.illinois.edu

cli-MATE: [http://mrcc.isws.illinois.edu/CLIMATE/](http://mrcc.isws.illinois.edu/CLIMATE/)

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