



National Weather Service  
Quad Cities  
**Service Guide**



# *The WFO Quad Cities Service Guide*

**A GUIDE TO SERVICES AND PRODUCTS PROVIDED BY WFO QUAD CITIES FOR EASTERN IOWA, NORTHWESTERN ILLINOIS, AND NORTHEASTERN MISSOURI**

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## *Foreword*

*The WFO Quad Cities Service Guide* was designed specifically for the news media, emergency management, and other partners who utilize National Weather Service products and services. We hope you will find this a handy reference tool for answering questions concerning the daily mission of the National Weather Service. If you should have any questions or would like to offer comments on this guide, please contact one of the following office managers:

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## *Acknowledgements*

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*The WFO Paducah Navigator, A Guide to Products and Services Provided by WFO Paducah*, written by Ryan J. Presley.

*National Weather Service Media Guide*, Gaylord, Michigan.

The authors would also like to thank individuals at WFO Quad Cities who have graciously reviewed this guide and provided numerous suggestions for improvement.

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# Table of Contents

I. Background & Mission.....	4
A. Vision and Values	
B. Office Team Members	
C. Service Area Configuration	
II. Climate.....	6
A. General	
B. Severe Weather	
III. Information Outlets.....	15
A. Information Superhighway (Web Site)	
B. NOAA All Hazards Radio	
C. NOAA Weather Wire Service (NWWS)	
D. Emergency Managers Information Network (EMWIN)	
IV. Information Services .....	18
A. Community Safety and Preparedness	
B. Emergency support	
C. Text Information Services	
1. General Forecast	
2. Severe weather	
3. Hydrology	
4. Climate	
5. Winter weather	
6. Non-precipitation	
D. Graphical Services	
E. Digital Services	
V. Safety Tips.....	29
A. Heat	
B. Flash Flood	
C. Thunderstorm	
D. Tornado	
E. Winter storm	
F. Fog	
G. Boating/Outdoor Activity	
VI. Appendices .....	34
A. Severe weather descriptors	
B. Wind Chill Chart	
C. Heat Index Chart	
D. Active Text Product Identifier List	
E. FIPS Codes	
F. Local NOAA All Hazards Radio Stations	

## *Background & Mission*

The National Weather Service (NWS) is an agency under the National Oceanic and Atmospheric Administration (NOAA) and the Department of Commerce (DOC). “The National Weather Service provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, **for the protection of life and property and the enhancement of the national economy**. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.”

This mission is carried out by a highly trained workforce amidst a network of weather offices located throughout the United States and its territories, operating around-the-clock, 365 days a year. Information is made available to the private sector through such outlets as Family of Services, NOAA Weather Wire Service, Emergency Managers Weather Information Network, and the Internet to meet specific and unique individual, corporate, and educational needs.

## *NWS Quad Cities Vision and Values*

Within the framework of the national mission outlined above, our priority for service to the nation is **protection of life and property, and enhancement of the national economy**. For the National Weather Service in the Quad Cities, this means constantly striving to provide accurate weather and hydrologic services to the best of our ability for the residents in Eastern Iowa, Northwest Illinois and Northeast Missouri.

**Our Vision:** "Provide “World Class” climate, water and weather products and services, through the infusion of advanced science and technology, dedicated teamwork, superior customer service, and steadfast public outreach."

**Our Values:** "We are committed to excellence, providing customer - oriented service through teamwork, professionalism, and integrity."

## *Office Team Members*

### **ADMINISTRATIVE AND SUPPORT . . .**

- Meteorologist-In-Charge
- Warning Coordination Meteorologist
- Science and Operations Officer
- Service Hydrologist
- Data Acquisition Program Manager
- Information Technology Officer
- Administrative Assistant

### **WARNING AND FORECAST OPERATIONS . . .**

- 5 Lead Forecasters
- 4 Journey Forecasters
- 2 Hydrometeorological Technicians
- 2 Meteorologist Interns

### **ELECTRONICS SUPPORT TEAM . . .**

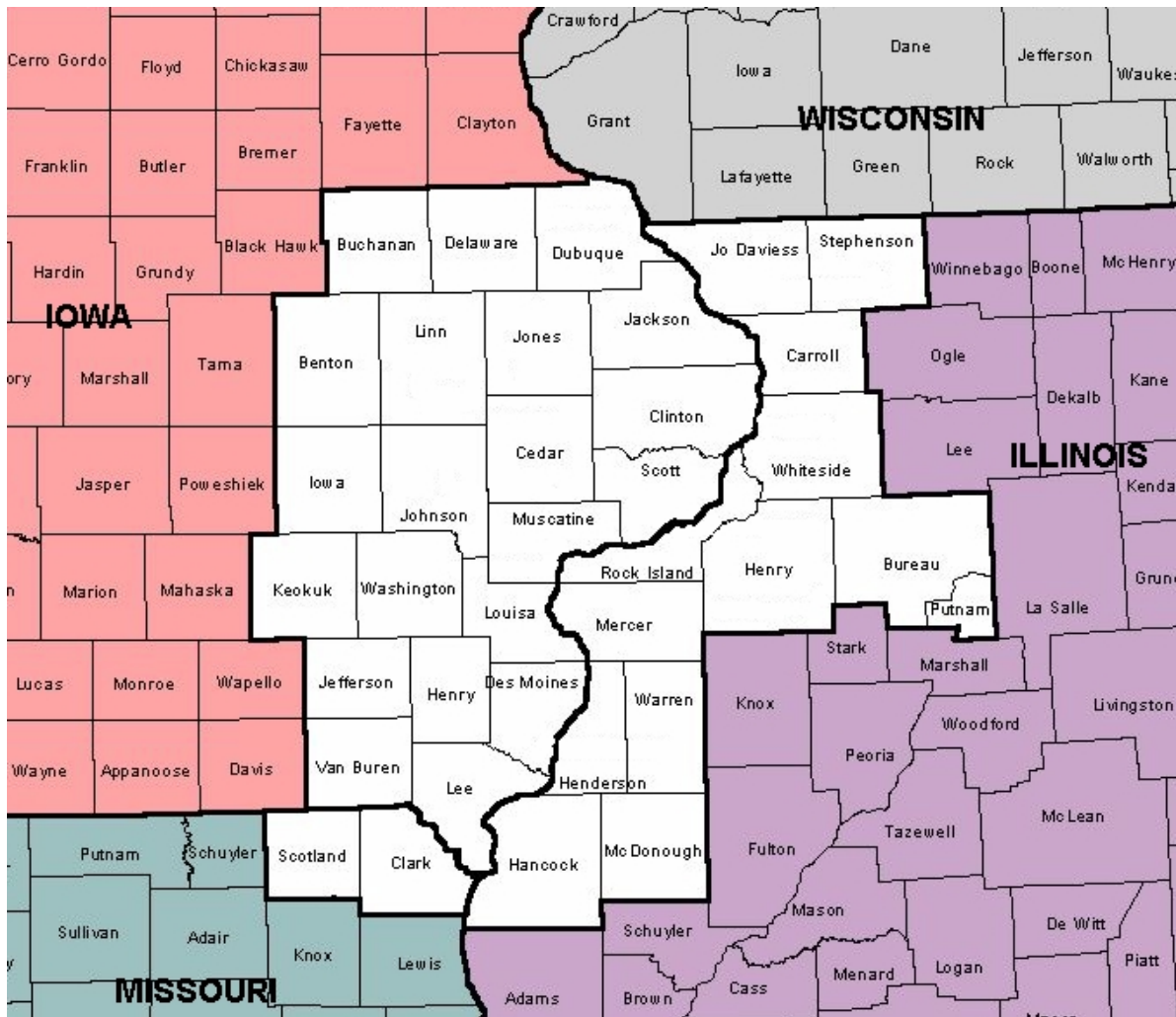
- 1 Electronic Systems Analyst
- 2 Electronics Technicians

# Service Area Configuration

There are more than 120 NWS Weather Forecast Offices (WFO) located throughout the United States. Each local WFO is responsible for issuing forecasts and warnings and coordinating with partners and customers within their local service area.

WFO Quad Cities' area of responsibility encompasses 36 counties, comprised of 21 in eastern Iowa, 13 in western Illinois, and 2 in northeast Missouri. Immediately surrounding WFO Quad Cities are similar offices located in: La Crosse and Madison, Wisconsin; Chicago and Lincoln, Illinois; St. Louis and Kansas City, Missouri; and Des Moines, Iowa.

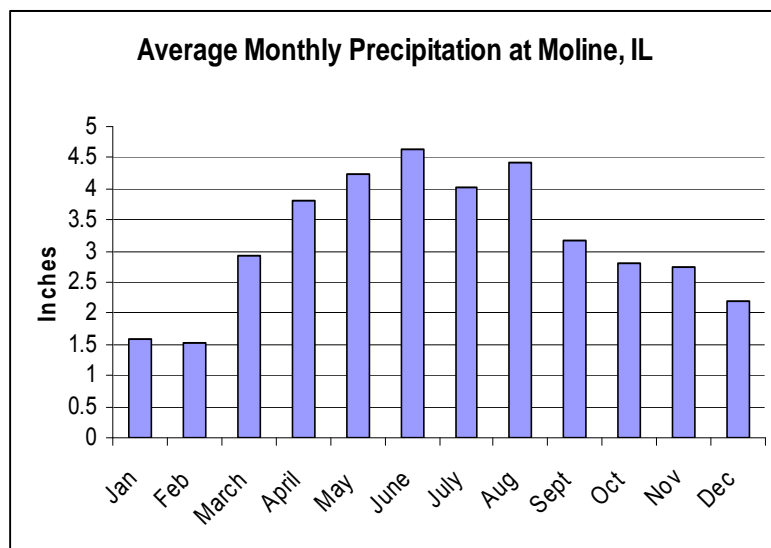
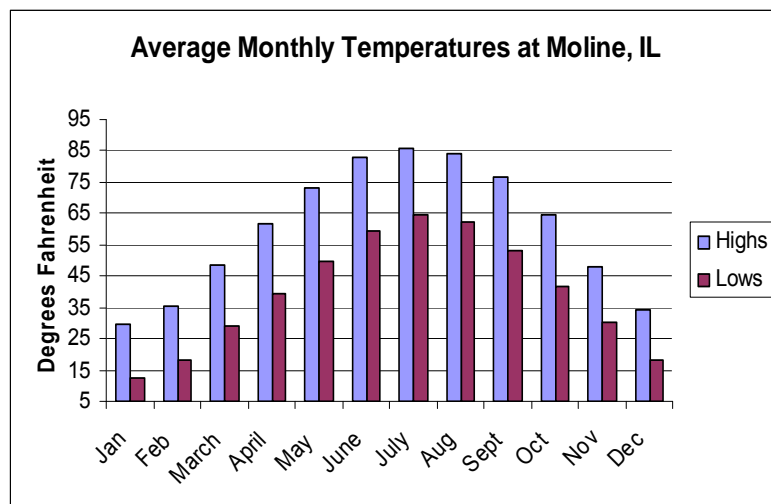
The following map details the county configuration for the Quad Cities Service Area. WFO Quad Cities' area of responsibility encompasses the counties in white:



# Climate Information

## General Climatology

The climate of eastern Iowa and northwest Illinois is continental in character, featuring strong seasonal contrasts and sharp daily changes. Winters are cold and generally dry while summers are warm and humid. The mean annual temperature is about 50°F. In January normal lows fall to around 10 degrees and highs reach the upper 20s. In July the normal temperature reflects lows in the mid 60s and highs in the mid 80s. Annual precipitation averages between 30 and 40 inches with much of it falling in the period from April through September. Seasonal snowfall averages about 35 inches, but in the past 30 years has ranged from as little as 12 inches to as much as 71 inches. The average growing season is around 170 days between late April and mid-October. Details on climate extremes and normals are available in the Climate section of our web site ([www.weather.gov/quadcities/climate](http://www.weather.gov/quadcities/climate)).



# Severe Weather Climatology

Significant weather, (i.e. tornadoes, large hail, damaging straight-line winds, floods, flash floods, freezing precipitation and heavy snow) presents challenging elements for which to provide forecasts and warnings. Knowledge of the climatology of significant weather is useful for anyone living in the area.

## ***Tornadoes***

A local study of tornadoes found that from 1950 through 2006, 701 tornadoes occurred in the Quad Cities NWS Service Area for an average of about 12 per year. Of these, 74% were “weak” with winds estimated at less than 110 mph (rated EF0 and EF1).

Tornadoes typically occurred from mid-March to mid-November with a peak from mid-April through late May. Almost all of the tornadoes occurred between noon and midnight, with a peak between 1400 and 1900 CST.

## ***Wind***

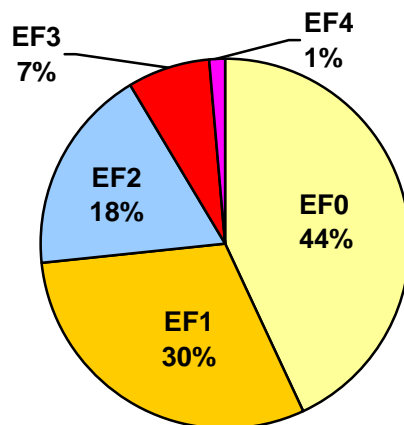
Using data from the Doppler Radar Era (1994-2006), another local study found that 1561 severe wind events (speeds 58 mph or greater) occurred, for an average of 120 events per year. The peak occurrence is between April and September, with a peak in June. Most events occurred between noon and 10 pm with a secondary peak in the early morning from 1 to 5 am.

## ***Hail***

From the same period as severe wind events, large hail events (3/4 inch or greater diameter) tallied 1346 occurrences, averaging 104 events per year. The hail season peaks between April and June, roughly parallel to tornadoes and about a month sooner than wind events. Most occurrences are between 1200 and 2400 CST with a diurnal peak between 1400 and 2100 CST.

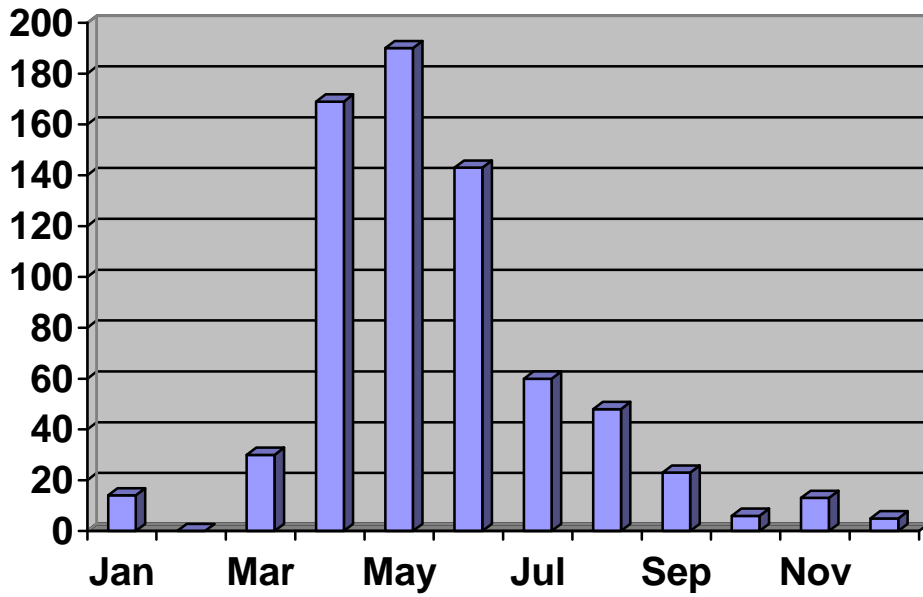
## **Strength of Tornadoes**

1950-2006 / WFO Quad Cities, IA/IL CWA



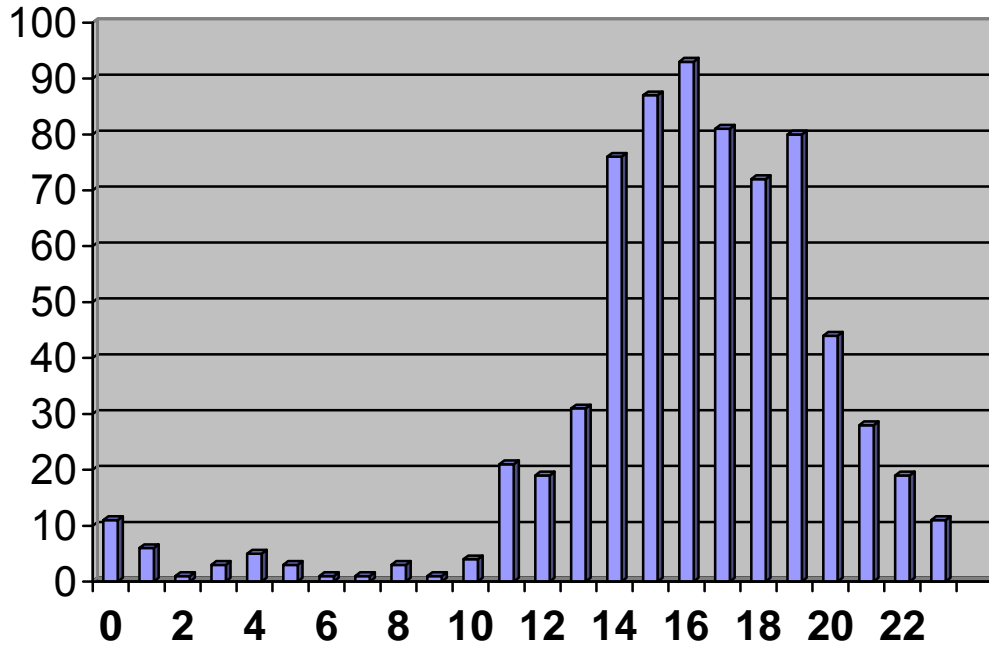
### Number of Tornadoes by Month

1950-2006 / WFO Quad Cities, IA/IL CWA



### Number of Tornadoes by Hour

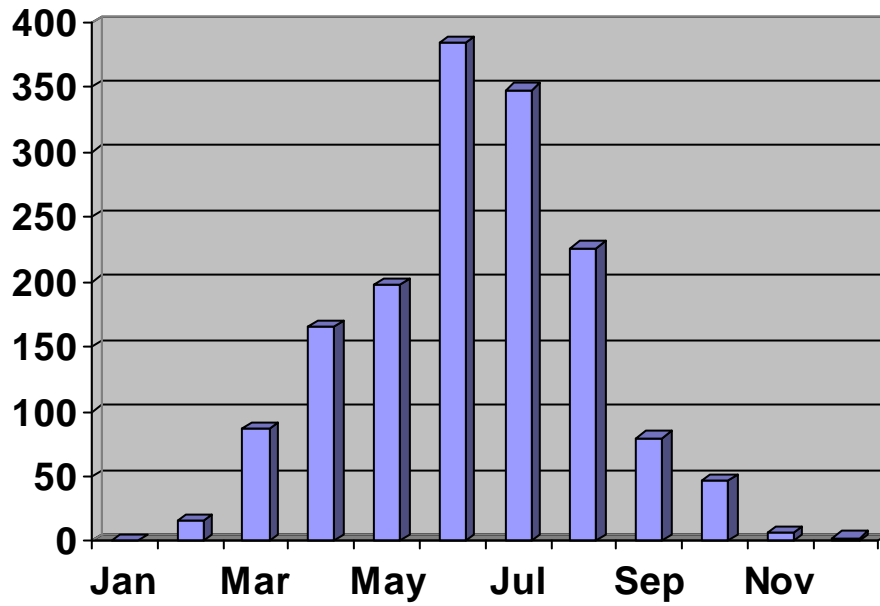
1950-2006 / WFO Quad Cities, IA/IL CWA





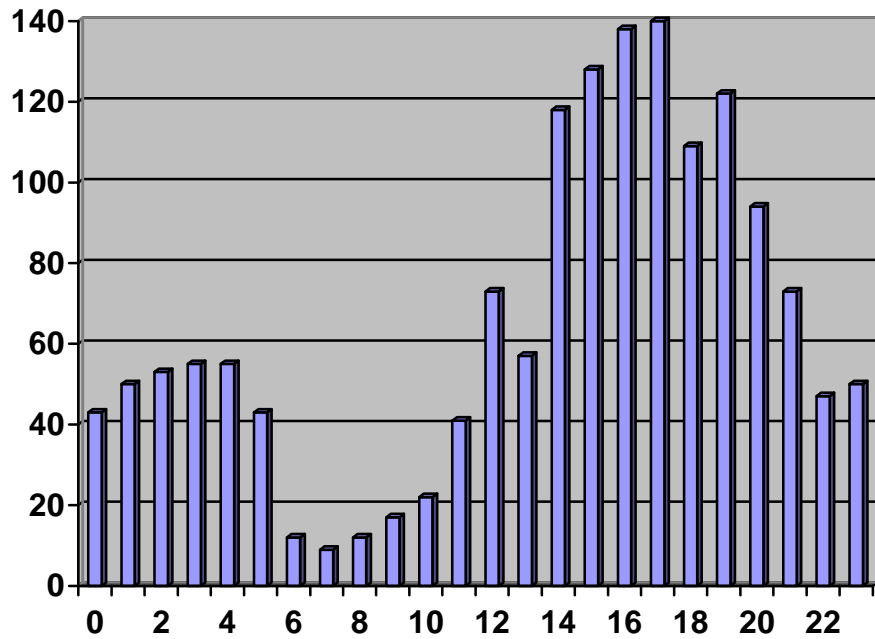
## Number of Damaging Wind Reports by Month

1994-2006 / WFO Quad Cities, IA/IL CWA



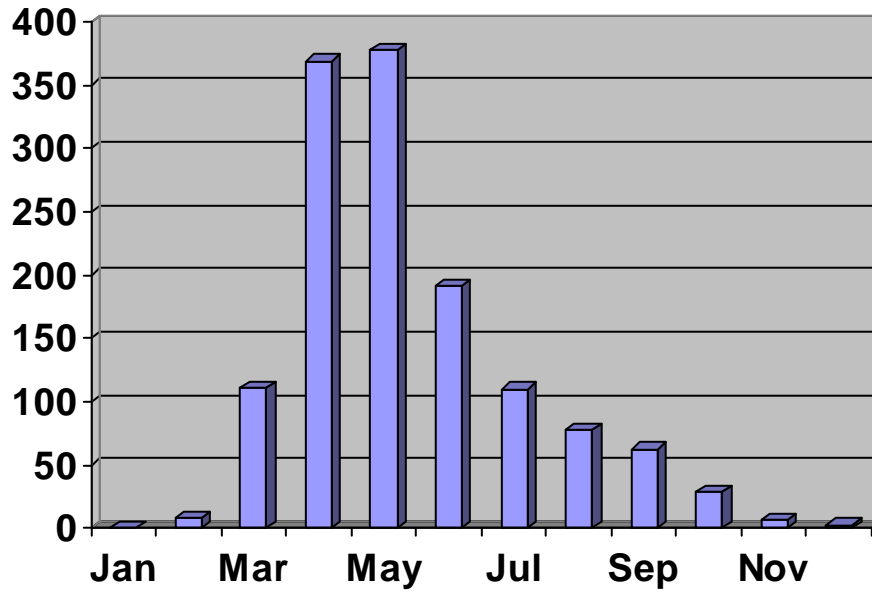
## Number of Damaging Wind Reports by Hour

1994-2006 / WFO Quad Cities, IA/IL CWA



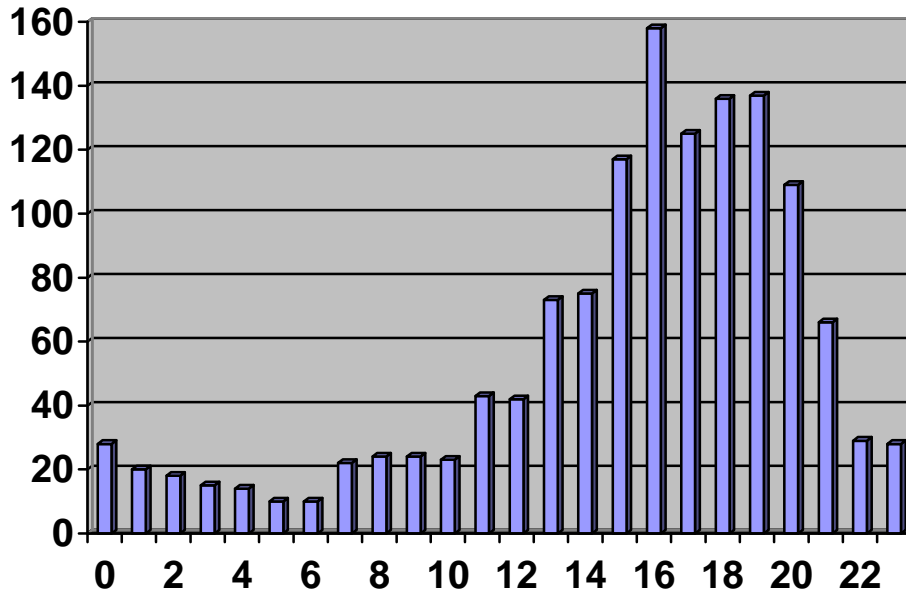
### Number of Large Hail Reports by Month

1994-2006 / WFO Quad Cities, IA/IL CWA



### Number of Large Hail Reports by Hour

1994-2006 / WFO Quad Cities, IA/IL CWA



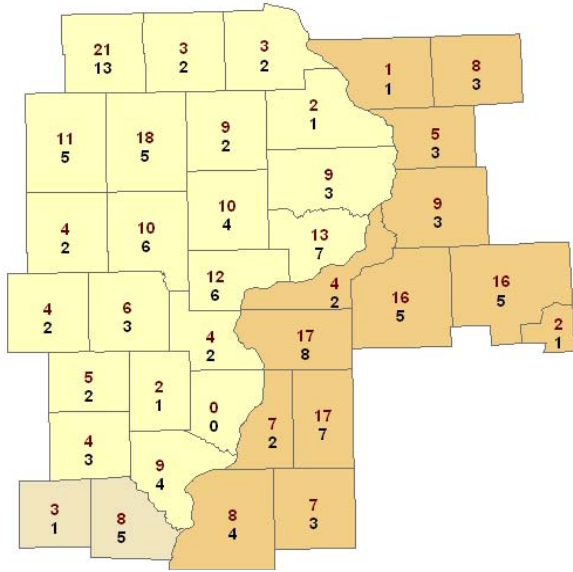
# County-by-County Severe Weather Events

1995-2006

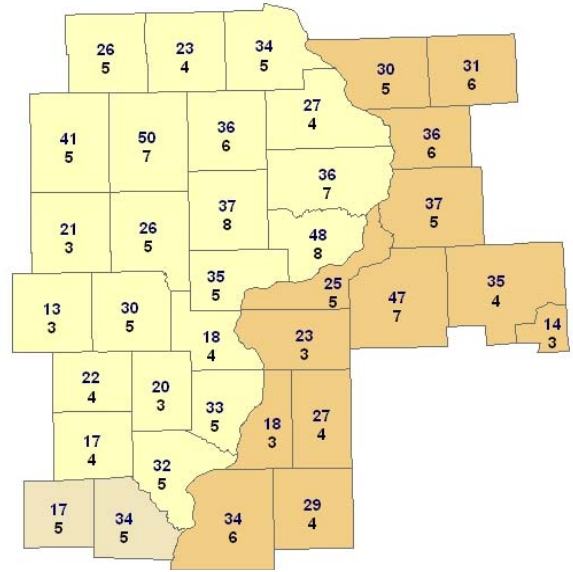
**Top number:** Total during the period

**Bottom number:** Most in a single year

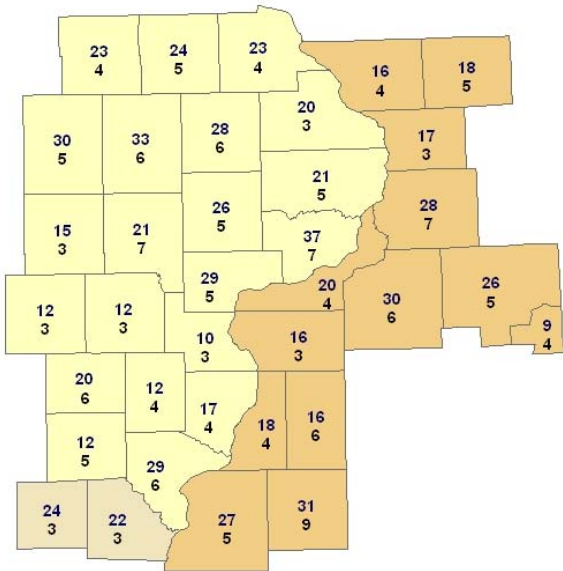
## Tornadoes



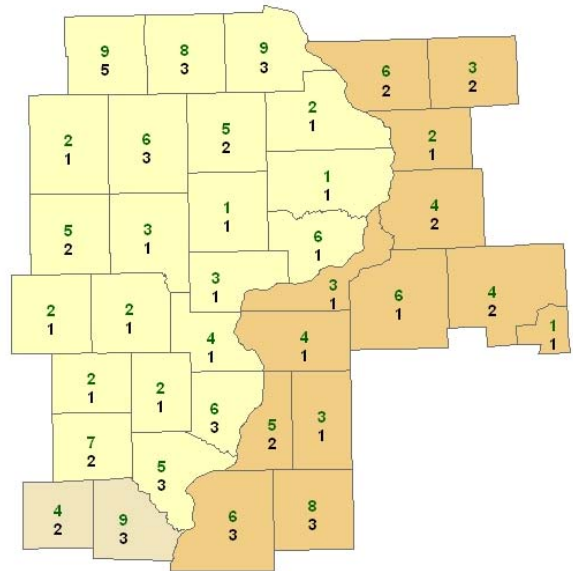
## Severe Wind



## Hail



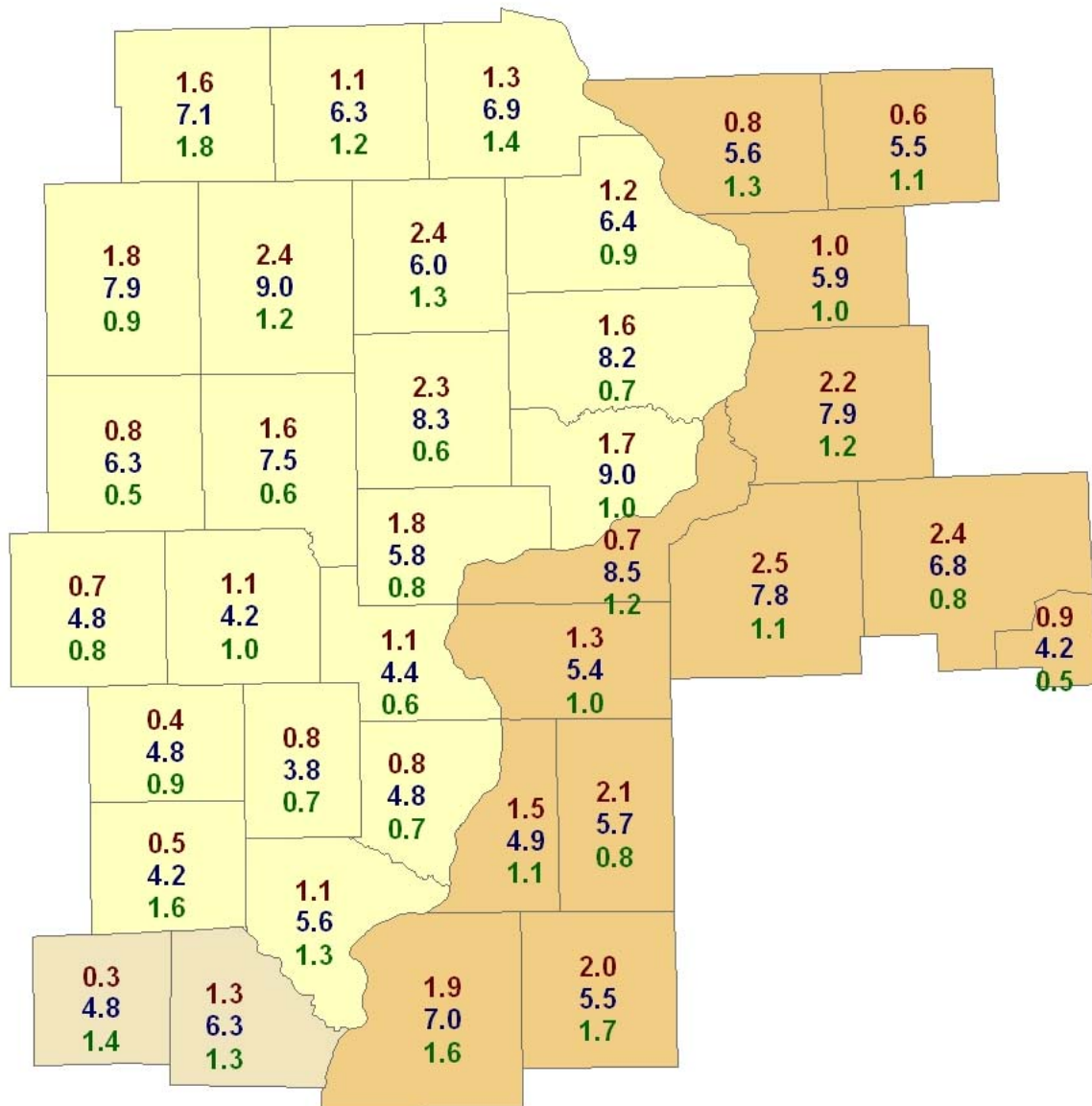
## Flash Floods



## County-by-County Severe Weather Warnings

Annual Average from 1995-2006  
(Doppler Radar Era)

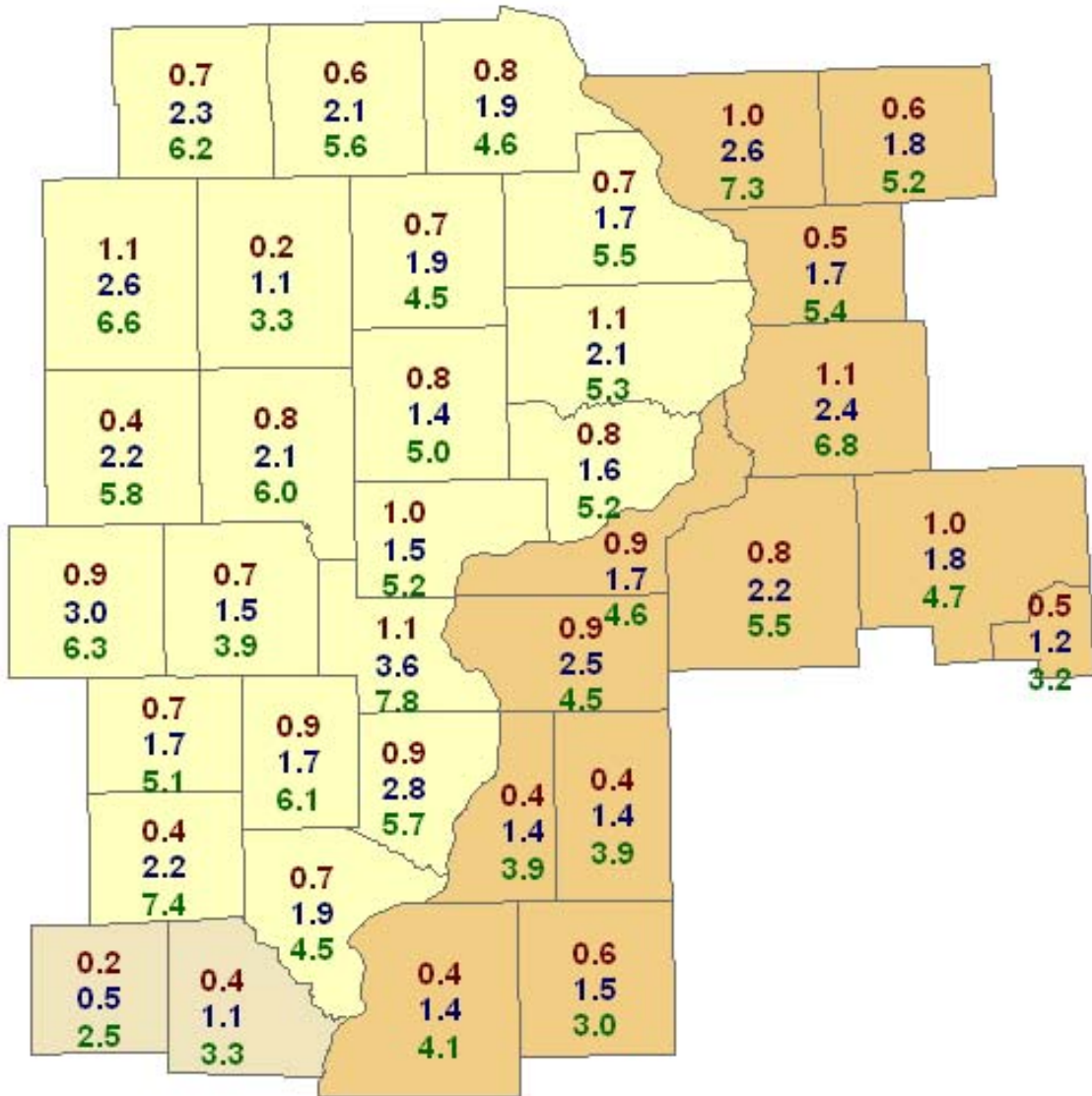
**Red:** Tornado warnings  
**Blue:** Severe Thunderstorm Warnings  
**Green:** Flash Flood Warnings



# County-by-County 24-Hour Snowfall

Annual Average from 1995-2006

**Red:** 6 inches or more  
**Blue:** 4 inches or more  
**Green:** 2 inches or more





# Information Outlets

## Information Superhighway - www.weather.gov/quadcities

Whether you need tomorrow's forecast or last month's climate data, WFO Quad Cities Internet page features a wealth of information that is sure to fulfill many of your weather-related needs. To provide a quick assessment of current weather at a glance, links to local forecast and hazardous weather information, radar images, and weather headlines are front-and-center. Also accessible are details on NOAA All Hazards Radio, information and photographs from historic weather events, our online newsletter, and links to a variety of computer model weather data. To support your preparedness and safety needs, a plethora of downloads are also available on our website. These downloads include: brochures, reference materials, weather presentations, and other weather support resources.

The screenshot shows the NOAA's National Weather Service Weather Forecast Office website for Quad Cities, IA/IL. The page includes a navigation menu on the left with categories like "Local forecast by City, St or Zip Code", "Current Hazards", "Forecasts", "Rivers / Hydrology", "Climate", and "Weather Safety". The main content area features a "Top News of the Day" section with links to "Flood Safety Awareness Week is March 19-23, 2007", "NOAA Announces U.S. Spring Outlook", and "Spotter Training Classes for 2007". Below this is a map of the Quad Cities region with a legend for "Flood Warning", "Severe Thunderstorm Watch", "Flood Statement", "Special Weather Statement", "Short Term Forecast", and "Hazardous Weather Outlook". The map shows various cities like Waterloo, Davenport, and Clinton. Below the map is a "Latest Conditions in Moline, IL" section showing "Mar 21 12:52 pm 70°F (21°C) Partly Cloudy". There are also sections for "Local Storm Report (LSR) now in effect!" and "Public Information Statement (PNS) now in effect!". At the bottom, there are links to "Radar", "Satellite", "Weather Map", "Daily Climate Maps", and "Climate Graphs".

Of particular interest is the array of current weather information-right at your fingertips! This includes:

- **Hazardous weather and hydrologic information** (outlooks, warnings, storm reports)
- **Radar and satellite images**
- **Forecast Information** (public, hydrologic, aviation, and fire weather)
- **Current observations** (both general weather and hydrologic)
- **Climate data** (daily, monthly, and record information)

## **NOAA Weather Radio All Hazards**

NOAA Weather Radio All Hazards is the smoke detector of severe weather. As the voice of the National Weather Service, it provides continuous broadcasts of the latest weather information. Digitally recorded weather messages are repeated every three to five minutes and are routinely revised at least every hour to cover changing weather conditions. NOAA All Hazards Radio serves the three state region and operates on a 24/7 basis, with the format tailored to the needs of the people within the listening area. During severe weather, the National Weather Service preempts the routine weather broadcast and substitutes special warning messages.

NOAA Weather Radio All Hazards broadcasts warnings and post-event information for all types of hazards - not just weather! As conditions warrant, broadcast information includes: natural (such as earthquakes, forest fires, and volcanic activity), human or technological (such as chemical releases, oil spills, nuclear power plant emergencies, AMBER alerts, etc.), and national emergencies. Working with other Federal agencies and the Federal Communications Commission's (FCC) Emergency Alert System (EAS), NOAA Weather Radio All Hazards truly is an all-hazards radio network, making it the single source for the most comprehensive weather and emergency information available to the public.

Commercial radio and TV stations are authorized to rebroadcast any material transmitted over NOAA radio, subject only to minimal restrictions stated in FCC Public Notice 70110852876.

Seven frequencies are reserved for NOAA All Hazards Radio. A specially designed radio or scanner is needed to receive the broadcast. The broadcast frequencies are:

162.400 MHz	162.450 MHz	162.500 MHz	162.550 MHz
162.425 MHz	162.475 MHz	162.525 MHz	

Currently, 17 NOAA All Hazards Radio transmitters serve the area covered by WFO Quad Cities. The broadcasts can be heard as far away as 40 miles from the antenna site, sometimes more. The effective range depends on many factors, particularly the transmitter height, terrain, receiver quality, and present weather. An outside antenna can significantly improve reception.

A complete listing of the stations serving the local area is included in Appendix E of this guide. Visit the web site ([www.weather.gov/quadcities/](http://www.weather.gov/quadcities/)) for more information on selecting a weather radio.

## **NOAA Weather Wire Service**

The NOAA Weather Wire Service (NWWS) is considered the primary telecommunication network for disseminating weather information to the mass media, emergency management agencies, and other users. Using a combination of dedicated phone lines and satellite communications, information is placed on the NWWS in a matter of seconds from the time it leaves our office. An upgrade to the NWWS occurred



in the year 2000 when the Replacement NWWWS became operational. At its full capacity, the new R-NWWWS provides users with extensive graphics imagery in addition to text products.

Each text product issued by WFO Quad Cities is identified by a ten-character WMO (World Meteorological Organization) ID (format: TTAA00 KDVN), along with a six-character AWIPS ID (format: NNNDVN). For example, a Tornado Warning issued by WFO Quad Cities carries a WMO ID of WFUS53 KDVN and an AWIPS ID of TORDVN. This guide refers to products using the AWIPS ID. For programming purposes, the NWWWS uses WMO ID's. A complete list of active text product identifiers can be found in Appendix C of this guide or on the web site at [www.weather.gov/quadcities/tools/pils.htm](http://www.weather.gov/quadcities/tools/pils.htm)

Weather wire customers can also define their geographic area of concern using a county identification system called the Universal Geographic Code (UGC). The UGC is based on the FIPS codes listed in Appendix D of this manual. In the future, the first digit of this code will allow counties to be divided into nine segments (NW/N/NE/W/C/E/SW/S/SE), providing even finer resolution.

For more information on the NOAA Weather Wire Service, visit the NWS web site at [www.nws.noaa.gov/nwws](http://www.nws.noaa.gov/nwws), or Dyncorp's web site at [www.weatherwire.net](http://www.weatherwire.net). You can subscribe to the NWWWS by calling Dyncorp at 1-800-633-2340.

## **Emergency Managers Weather Information Network**

The Emergency Managers Weather Information Network (EMWIN) is a low-cost method for receiving National Weather Service weather products in both text and graphics format. Available products include severe weather and flood watches and warnings, forecasts, weather observations, satellite imagery, and a national radar summary. Users also have the capability of setting various alarms to alert them to a variety of information, programmable to the county level. Users can also choose to forward messages automatically to pagers or email lists.

EMWIN was designed to be a cost-effective alternative for emergency managers and others that lack access to, or funding for, more costly data services. Because the weather information is free, the only expense is the one-time set up cost for the receiving equipment and inexpensive commercial software. This digital data stream is available nationwide directly from satellites, and in many locations, in an easier and less costly manner using local radio rebroadcasts and other techniques.

The EMWIN data stream is also available on the Internet via the Interactive Weather Information Network (IWIN) or Internet Weather Source. To access these services, simply visit <http://iwin.nws.noaa.gov> or <http://weather.noaa.gov>.

For more information on EMWIN, log onto the EMWIN information page at <http://iwin.nws.noaa.gov/emwin/index.htm>. Here, you will find a helpful list of EMWIN vendors that have many variations of systems, software, and options available to receive NWS products.

# ***Information Services***

## **Community Safety and Preparedness Services**

- **Risk Assessment** – A key part of being prepared is to know *what* you are preparing for. The National Weather Service in the Quad Cities develops local climate studies of various weather phenomena to help community and business planners assess their hazardous weather risk. Portions of these studies are included in the climate sections of this guide. A more in depth risk assessment for each county in our local service area is available on our web site.
- **Severe Weather Awareness Week** – Each state designates a Severe Weather Awareness Week in March annually to educate the community about severe weather hazards. This week is an opportunity for schools, businesses, individuals, and organizations to review their severe weather action plans. As a partner in this important function, the National Weather Service broadcasts weather safety information on NOAA All-Hazards Radio during March, and also issues a TEST Tornado Warning at a designated time for each state. These practice warnings not only test the technical warning system, but also are an ideal opportunity for people to practice their own severe weather plans, whether at home, at work, or at school.
- **Winter Weather Awareness Week/Day** – Each Midwest state designates a Winter Weather Awareness Day or Week, usually in November, each year to educate the community about winter weather hazards. This time serves as a reminder for people to make necessary preparations for the coming winter. The Quad Cities NWS Office provides preparedness and safety information through the web site ([www.weather.gov/quadcities](http://www.weather.gov/quadcities)) and special messages on NOAA All-Hazards Radio.
- **Weather Safety Information** – For people to protect themselves, they must be informed about appropriate actions to take in different weather situations. The National Weather Service, together with the American Red Cross, recommends protective actions for winter, heat, thunderstorms, tornadoes, and flash floods.
  - **Web site:** All safety information is available through the web site ([www.weather.gov/quadcities/preparedness](http://www.weather.gov/quadcities/preparedness)).
  - **Downloadable presentations:** The web site also includes downloadable safety presentations, with age-appropriate versions geared toward different age ranges that you can use for your own safety education program.
  - **Brochures:** Official weather safety brochures may also be downloaded in PDF format from the web site. Limited numbers of these brochures may be available for specific needs by contacting your local Red Cross or NWS office.
- **Media Interviews and News Conferences** – Staff are available for media interviews via the operations phone numbers 24/7/365. News conferences are held at the office for major weather stories (possible tornado outbreak, drought, large tornado, major winter storm, etc.) To be added to the notification list for news conferences, contact Donna Dubberke at [donna.dubberke@noaa.gov](mailto:donna.dubberke@noaa.gov).

- **Severe Weather Spotter Training** – Storm spotters play an important role in any effective warning process. Organized through local emergency management agencies, National Weather Service personnel conduct up to 2 storm spotter training classes per county each spring from February through April.

## Emergency Support Services

- **Air Quality** – In cooperation with state agencies WFO Quad Cities issues air stagnation advisories.
- **Amber Alert** – WFO Quad Cities assists state law enforcement in the dissemination of Amber Alerts for child abductions.
- **Civil Emergency (HAZMAT, Nuclear, 911 Outages, etc.)** – WFO Quad Cities provides current observations and forecast information in support of local incidents. When an incident threatens life or property, a non-weather emergency message may also be disseminated via the weather wire and to EAS via NOAA All Hazards Radio.
- **Fire Weather** – Spot weather forecasts are issued by WFO Quad Cities for emergency management and land management agencies in support of wild fire containment and land management.

## Text Information Services

### General Forecast

- **Public Information Statement (PNS)** The Public Information Statement is issued as needed to share information pertinent to services or current events. For example, the PNS is used to convey results from storm damage surveys, to report weather radio outages, to describe service changes, or to share preparedness and safety messages.
- **Zone Forecast (ZFP)** The zone forecast highlights the expected sky condition, temperature, type and probability of precipitation, and any visibility restrictions affecting various *zone* groups for each 12-hour period out to 7 days. Wind direction and speed are also included in the forecast out to 2½ days. WFO Quad Cities issues the zone forecast by 4 a.m. and 3:30 p.m. This forecast is updated as needed to meet changing weather conditions.
- **Point Forecast Matrix (PFM)** The Point Forecast Matrix provides detailed, numeric forecast data in a tabular format, with the weather parameters listed in 3-hour and 12-hour intervals out to 7 days into the future. These intervals, incorporated into a matrix format, create a detailed forecast, allowing quick viewing or decoding by automated systems of various weather parameters.

- **Special Weather Statement (SPS)** The Special Weather Statement is the primary method of communicating in plain language the expected conditions for the next several hours. Issued as needed, the SPS is an event-driven forecast designed to handle all weather, including thunderstorms below “severe” criteria, dense fog, and winter conditions.
- **Terminal Aerodrome Forecast (TAF)** The Terminal Aerodrome Forecast is valid for 24 hours from the issuance time and provides a forecast of wind, visibility, weather, and sky condition (coverage and ceiling height) for a particular airport. WFO Quad Cities routinely disseminates TAFs four times daily for four airports: Moline, Cedar Rapids, Dubuque, and Burlington. Updates are issued as needed.
- **Area Forecast Discussion (AFD)** WFO Quad Cities issues the Area Forecast Discussion twice daily by 330 a.m. and 3 p.m. It provides scientific insight into the thought process of the forecasters on duty. The forecasters typically separate the discussion into short-term and long-term sections, aviation, and sometimes hydrology and utilize meteorological reasoning to compare numerical models, conceptual models, indicate temperature and precipitation trends, etc. Any weather headlines (watches, advisories, etc.) are detailed along with the aerial extent of those phenomena at the end. If no “headlined” weather is expected, “.DVN...NONE.” appears at the bottom of the discussion.
- **Hazardous Weather Outlook (HWO)** The Hazardous Weather Outlook is an all-season, event-driven outlook that gives a general assessment of the type, location, and timing of hazardous weather potential across the county service area. It is subdivided into “Day One” and “Days Two through Seven”. When appropriate, a “Spotter Information Statement” may be appended. WFO Quad Cities issues the Hazardous Weather Outlook between 5 and 6 a.m. daily, and updates as needed to convey new information regarding the hazardous weather potential.
- **Regional Weather Summary (RWS)** Issued by WFO Quad Cities by 9 a.m. and 9 p.m., the Regional Weather Summary provides an overview of weather conditions during the past 12 hours. This is followed by a synopsis of the upcoming weather and generalized 24-hour forecast for the region. The Regional Weather Summary may be supplemented with regional temperatures, precipitation reports, and other weather information.

## Severe Weather

- **Severe Thunderstorm and Tornado Watch**  
**Watch County Notification (WCN)** The WCN is issued by the local forecast office for the issuance and cancellation of local counties in severe thunderstorm or tornado watches.  
**Watch Outline Update (WOU)** The WOU is issued by the Storm Prediction Center for the initial issuance of a severe thunderstorm or tornado watch. The WOU is also updated hourly for each watch to incorporate any county additions or cancellations by the local forecast offices.

- **Tornado Warning (TOR)** A Tornado Warning is issued when a tornado is expected to develop or one is sighted by a trained spotter or public official. A Tornado Warning may also be issued if Doppler radar shows the development of strong rotation within a storm. The warning is as specific as possible, including the counties affected, duration, and towns directly in the path of the storm. A call-to-action for public safety is also included.
- **Severe Thunderstorm Warning (SVR)** A Severe Thunderstorm Warning is issued when either or both of the following is occurring or imminent:  $\frac{3}{4}$ " diameter hail (penny size) or larger, winds of at least 50 knots (58 mph). The warning includes the counties affected, duration, basis for the warning, communities in the path, an indication of the primary threat, and a call-to-action for public safety.
- **Severe Weather Statement (SVS)** A Severe Weather Statement is used to follow-up a severe weather warning. This product updates the user on the current position and expected movement of the storm and includes timely reports of severe weather that have already occurred with the storm. An SVS can be issued to cancel a warning early and will *usually* be issued when the warning expires. (Note: the ampersand (&) at the end of a product, such as the SVS, is intentionally placed there to alert the Storm Prediction Center that the product contains a storm report.)
- **Local Storm Report (LSR)** A Local Storm Report is used to distribute severe weather and flood reports. It is issued during an event as reports are received and may be issued at the event's conclusion to summarize the reports for the entire event. Delayed reports may also be sent via an LSR if received after the event has ended.

## Hydrology

- **Flood Watch (FFA)** A Flood Watch is issued to alert the public that there is a *threat* of (flash) flooding, but the occurrence is neither certain nor imminent. The watch usually covers a large geographic area and is issued 12 to 48 hours before the primary threat of flooding is expected to occur.
- **Flood Warning (FLW)** A Flood Warning is issued (1) *for a county or area* when a gradual rise in waters resulting from heavy rains is expected to threaten life and/or property and persist for more than six hours, or (2) *for point(s) along a main-stem river* that is expected to rise above flood stage. Detailed crest information for selected sites along the river is included.
- **Flood Statement (FLS)** A Flood Statement is used to follow-up a Flood Warning, whether for aerial or river flooding. Other uses for this product include urban and small stream flooding and river flooding at forecast points that are expected to approach but not exceed flood stage. Moreover, a flood statement is used to terminate a flood warning at the end of a flood event.
- **Flash Flood Warning (FFW)** A Flash Flood Warning is issued when *rapidly* rising water is expected to threaten life and/or property. A Flash Flood Warning includes

the counties affected, duration, basis for the warning, and brief call-to-action statements to advise the public of safety precautions. It focuses on communities and areas where flooding is *imminent* or is already *occurring*. The FFW is followed up with at least one Flash Flood Statement. If the flooding is expected to persist for at least six hours, a Flood Warning is issued instead.

- **Flash Flood Statement (FFS)** A Flash Flood Statement is used as a follow-up to a Flash Flood Warning. The statement contains the latest and often more detailed information on the event, including flooding reports that may have been received. It also serves to cancel or expire a warning.
- **Hydrologic Outlook (ESF)** A Hydrologic Outlook can take the form of a Flood Potential Outlook, Spring Flood Outlook, or Drought Statement. This outlook is typically issued for extreme hydrologic conditions (wet or dry) that are expected to occur beyond 36 hours.
- **Hydrologic Summary (RVA)** The Hydrologic Summary is a daily update of river conditions, including the stage, water temperature, and 24 hour change in river stage at numerous points along main stem rivers. The RVA may be issued more frequently during a river flood event.
- **Daily River and Lake Summary (RVD)** The Daily River and Lake Summary is the primary means of disseminating routine river stage forecasts. It is issued twice daily, once in the morning, and again in the evening. The RVD lists flood stage, current stage, 24 hour change, and five day river stage forecasts for selected locations.
- **River Ice Statement (RVS)** The River Ice Statement is issued each Wednesday, and summarizes the ice conditions on the Mississippi River.

## Climate

- **Daily Climate Report (CLI)** The Daily Climate Report provides a tabular summary of the current or previous day's weather conditions. A preliminary version of the climate report is issued around 4:30 p.m. each day, summarizing the high, low, precipitation, etc. for the day so far. A final summary is issued for each calendar day early the following morning. The report is issued under the header CLIMLI for Moline, Cedar Rapids, Iowa City, Burlington, and Davenport, and CLIDBQ for Dubuque.
- **Monthly Climate Report (CLM)** The Monthly Climate Report is similar to the Daily Climate Report. This report is issued at the first of each month and provides a summary of all the climate parameters for the previous month's weather.
- **Record Event Report (RER)** A Record Event Report is issued whenever a record-breaking phenomenon occurs. The product may be used for nearly any record climatologic condition, but most commonly is used to report record high or low temperatures.

- **Regional Temperature and Precipitation Table (RTP)** The Regional Temperature and Precipitation Table is issued 3 times daily, twice in the morning and once in the evening. It lists the high and low temperatures and precipitation and snow depth for selected area towns.

## Winter Weather

Unlike severe weather events, winter storms have the capability to completely immobilize large areas of a state and possibly several states simultaneously. Thus, winter weather watches, warnings, and advisories are issued for relatively *large* geographic areas rather than for one specific county. A Winter Weather Message (WSW) is used to issue, update, extend, expand, upgrade, or cancel a winter weather watch, warning, or advisory.

A WSW is issued for the following:

- **Winter Storm Watch**...Issued if there is a threat of heavy snow or sleet, significant accumulations of freezing rain or freezing drizzle, or any combination thereof. Usually issued for the second and third periods of a forecast (i.e., 12 to 36 hours in advance of the event). The definition of heavy snow in the Quad Cities forecast area is an average of 6 inches or more in 12 hours, or 8 inches or more in 24 hours.
- **Winter Storm Warning**...Issued if there is a high probability that severe winter weather will occur, such as heavy snow or sleet, significant accumulations of freezing rain or freezing drizzle, or any combination thereof. Normally issued for the first period (i.e., less than or equal to 12 hours in advance of the event), but may be issued for the second or third periods with a high-confidence forecast.
- **Blizzard Warning**...Issued for winter storms with sustained winds or frequent gusts of 35 mph or greater combined with considerable falling and/or blowing snow frequently reducing visibilities to ¼ mile or less. These conditions should last for at least 3 hours.
- **Ice Storm Warning**...Issued for those winter storms expected to produce a damaging ice accumulation of ¼ inch or more.
- **Winter Weather Advisory**...Issued when such wintry precipitation as snow, sleet, freezing rain or drizzle, or a combination thereof is expected, but accumulations will not reach warning criteria. If all snow, accumulations should average at least 3 inches, but less than 5 inches. If all ice, accumulations should average under ¼ inch. These criteria are subjective and may vary depending on the time of year and the public's perceived acclimation to winter weather conditions. A Winter Weather Advisory may also be issued when blowing and drifting snow will frequently reduce the visibility to ¼ mile or less and make for hazardous travel.

## Non-Precipitation Hazards

Non-precipitation phenomena such as high wind, heat, frost, and fog can be just as hazardous as heavy rain or snow. Like winter-weather events, non-precipitation events often cover large geographic areas, and thus advisories and warnings are issued for relatively *large* groups of counties. A Non-Precipitation Weather Message (NPW) is used to issue, update, extend, expand, or cancel a non-precipitation warning or advisory.

A NPW is issued for the following:

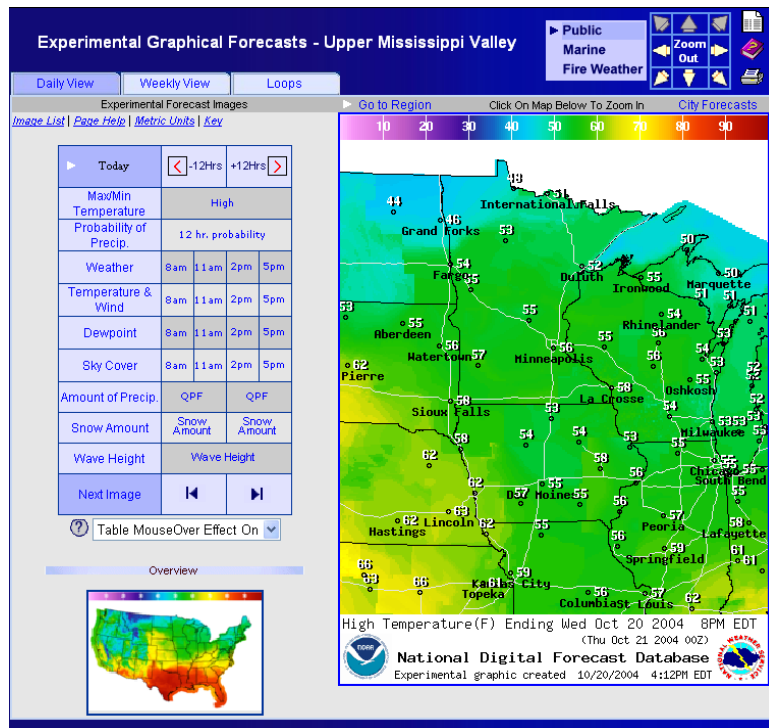
- **High Wind Warning**...Used when sustained winds of 40 mph or greater are expected to last for one hour or longer, or for *non-thunderstorm* wind gusts of 58 mph or greater for any duration. Includes gradient and mesoscale-high winds.
- **Wind Advisory**...Used when sustained winds of 30 mph or greater are expected to last for one hour or longer, or for sustained winds or gusts to at least 45 mph for any duration.
- **Excessive Heat Warning**...Issued when the heat index equals or exceeds 115°F for three hours or longer with a minimum heat index of at least 80°F during a 24-hour period. Also issued when Heat Advisory criteria persist for at least 3 days.
- **Heat Advisory**...Issued when daytime heat indices are at or above 105°F for at least 3 hours, with nighttime heat indices at or above 80°F over a 24-hour period.
- **Wind Chill Warning**...Issued when wind-chill temperatures are expected to fall to -30°F or colder.
- **Wind Chill Advisory**...Issued when wind-chill temperatures are expected to fall to -20°F to -30°F.
- **Freeze Warning**...Used during the growing season when air temperatures *at or below* 32°F are forecast over a widespread area. A Freeze Warning is also issued if temperatures are forecast at or below 28°F for at least 3 hours, or 26°F for any duration. Adjectives such as *killing, hard, or severe* may be used as appropriate to describe the freeze.
- **Frost Advisory**...Used during the growing season if a widespread frost is expected to pose a danger to farmers and gardeners (generally when overnight lows are forecast to fall below the mid 30s with clear skies and light winds).
- **Dense Fog Advisory**...Issued when dense fog, reducing visibilities to ¼ mile or less, covers a widespread area.



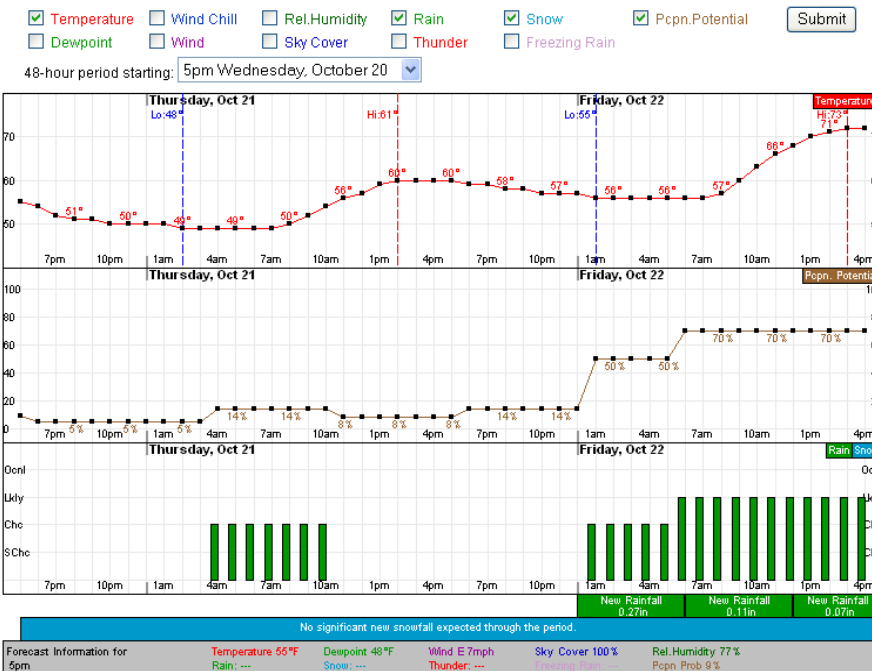
# Graphical Services

Available through our web site, graphical forecasts provide a different and very powerful view of the forecast than the traditional text.

This forecast image is an example of one graphical product available directly from our web page. Users are able to click through a full seven day forecast for a variety of weather elements, including: probability of precipitation, precipitation amount, weather, temperature, dew point, wind, and sky cover. These weather elements are available for the entire country.



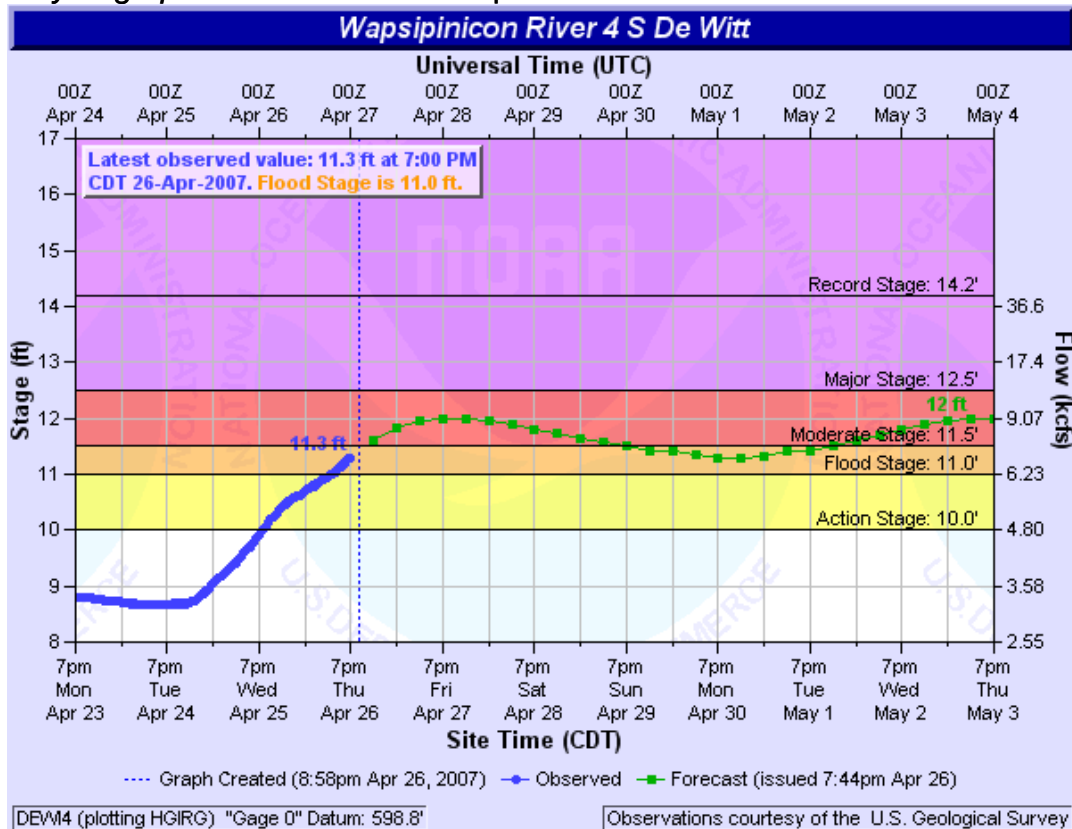
## Hourly Weather Forecast Graph



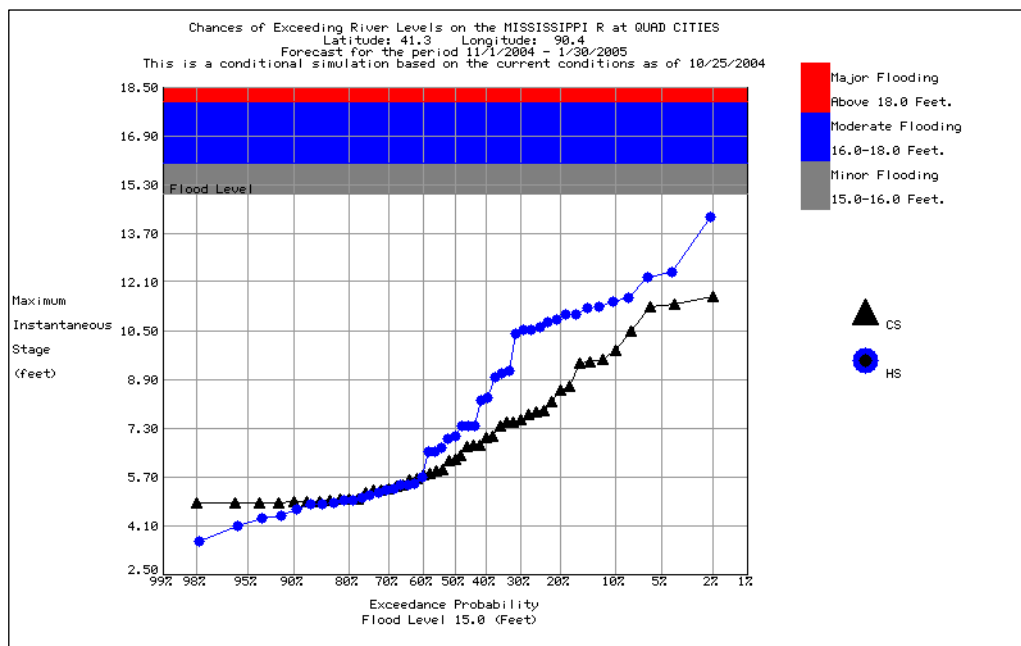
Interactive graphical forecasts are also available, allowing you to choose the weather elements and time period displayed.

**These are just examples of the type of graphics available. Visit [www.weather.gov/quadcities/](http://www.weather.gov/quadcities/) for the full suite of graphical and interactive forecast services.**

River information is also available in graphical format. The Advanced Hydrologic Prediction Service provides the traditional stage observations and forecast in the form of a *hydrograph* as well as a suite of probabilistic forecasts for numerous forecast points.



Visit [www.weather.gov/quadcities/ahps](http://www.weather.gov/quadcities/ahps) for the complete suite of graphical river forecasts.

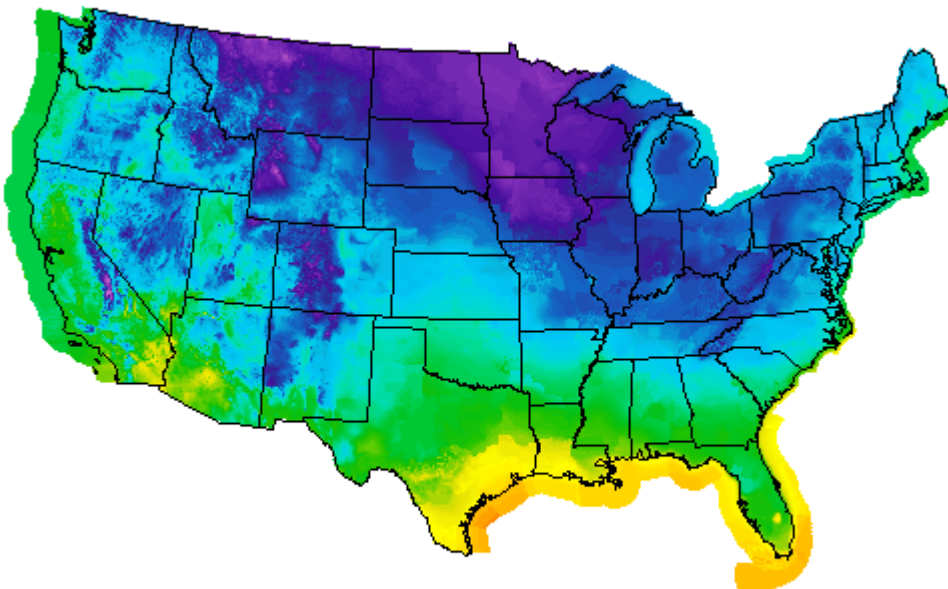


Example of a Probabilistic Forecast

## Digital Services

In the evolving world of Information Technology, providing gridded, digital information is a vital enhancement of service. People in all walks of life have increasing ability to get and display graphical or digital information, which is easier to use and understand, in addition to being much more specific. There is a need for higher resolution forecast data, as quickly as it is available.

The National Digital Forecast Database, a nationwide infrastructure that composites local gridded forecasts and then disseminates them, enables the National Weather Service to meet the growing demands of its customers and partners into the 21st century.



Low Temperature(F) Ending Sun Oct 17 2004 8AM EDT  
(Sun Oct 17 2004 12Z)



**National Digital Forecast Database**  
Experimental graphic created 10/16/2004 9:12PM EDT



### **How does NDFD work?**

The field forecaster enters the forecast variables for their area of responsibility in digital form, and then generates text, numeric, and graphical forecasts from this local database. Then the digital, gridded forecasts from each local NWS office are put into the National Digital Forecast Database (NDFD). This NDFD is available via the internet to everyone - public and private - and allows users to create a wide range of text, graphic, and image products of their own.

### **What can be done with NDFD?**

Private interests can produce a plethora of applications and products, either general information for radio and television broadcast, or tailored weather products for specific customers.

For example:

- Decision support systems that fit the forecast to the problem
- Weather information along a path
- Forecasts for vehicles and hand-held devices with Global Positioning Systems
- Text generation in more than one language
- Controls for smart appliances (e.g., heating, cooling, irrigation)
- Graphics for mass media
- Teaming the NDFD with geographic information systems (GIS) will provide very powerful capabilities

### **What forecast information is available through NDFD?**

A variety of weather, water, and climate forecasts as well as digital watch, warning, and advisory information will become accessible through interactive web sites. Initially the following forecast elements are available (but the list is growing constantly):

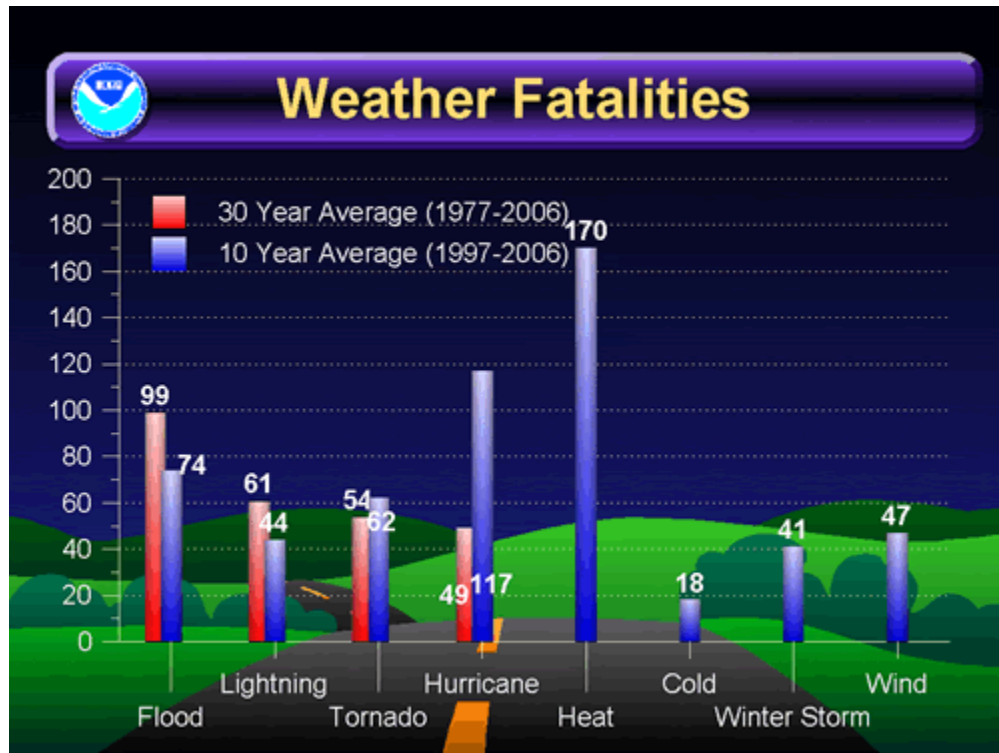
- Daytime Maximum Temperature
- Nighttime Minimum Temperature
- Probability of Precipitation (12 hour)
- Sky Cover
- Hourly Temperature
- Dew point Temperature
- Wind Direction and Wind Speed
- Amount of snow/rain

With time, a wider array of forecast elements will be added to the database as will a larger set of graphical presentations.

***Please visit [www.nws.noaa.gov/ndfd](http://www.nws.noaa.gov/ndfd) for more information.***

## Safety Tips

While tornadoes and hurricanes grab the majority of media coverage, heat and flooding are more common weather related killers, as shown by the following graph:



## Heat Wave

Heat claims over 200 American lives each year, usually because people needlessly overexpose themselves to the dangers of heat. Overexposure to heat can also result in such disorders as sunburn, heat cramps, heat exhaustion, or even heat stroke. When summer arrives and the heat turns on...

- Slow down. Strenuous activities should be reduced, eliminated, or rescheduled to the coolest time of the day, usually early morning or late evening. Individuals at risk, including the elderly, the very young, or those on certain medications, should stay in the coolest available place, which is not always indoors.
- Dress for summer. Loose-fitting, lightweight, light-colored clothing reflects heat and sunlight, and helps your body maintain its normal temperature.
- Try not to eat as much. Foods (like proteins) that increase metabolic heat production also increase water loss.
- Stay hydrated. Drink plenty of water or other non-alcoholic fluids even if you are not thirsty (unless your physician has directed otherwise). Your body needs water to keep cool.

- Do not drink alcoholic beverages. This is the same advice given for extremely cold weather. Alcoholic beverages will constrict the blood vessels, which will prevent adequate blood circulation to remove excess heat.
- Do not take salt tablets unless directed by a physician.
- Spend more time in air-conditioned places. Air conditioning in homes and other buildings markedly reduces danger from the heat. If you cannot afford an air conditioner, spending some time each day in an air-conditioned environment (such as a shopping center or movie theater) affords some protection.
- Do not get too much sun. Sunburn makes the job of heat dissipation even more difficult. Always wear adequate sunscreen if you must work outdoors.

## **Flash Flood**

*Flash flooding is a major weather-related killer in the United States, causing more deaths per year than thunderstorms or tornadoes.* When a flash flood warning is issued for your area, or the moment you first realize that a flash flood is imminent, act quickly to save yourself. You may have only seconds.

- Get out of areas subject to flooding. This includes low-water crossings, ditches, etc.
- Avoid already flooded and high-velocity flow areas. Never attempt to cross a flowing stream on foot or by car.
- If driving, know the depth of water in a low spot before crossing. The roadbed may not be intact under the water. It takes less than a foot of water to float a car!
- If the vehicle stalls, abandon it immediately and seek higher ground. Rapidly rising water may engulf the vehicle and its occupants and sweep them away. Remember, most flash flood deaths occur in automobiles!
- Be especially cautious at night when it is harder to recognize flood dangers.
- Do not park your vehicle or camp along streams and creeks, particularly during threatening conditions.

## **Thunderstorm**

Thunderstorms pose a threat in a number of ways, from lightning to hail and damaging winds. Watch for clues to an approaching storm, including increasing wind, flashes of lightning, rumbles of thunder, and static on your AM radio. When a thunderstorm threatens...

- If you can hear thunder, you are close enough to the storm to be struck by lightning. Move to a safe shelter immediately! Get inside a home, sturdy building, or an all-metal (not convertible) automobile.
- Do not stand near a natural lightning rod such as a tall, isolated tree, telephone pole, wire fences, clotheslines, or metal pipes and rails. Put down your golf clubs!
- Avoid projecting above the surrounding landscape by standing on a hilltop, observation tower, or other elevated object. Avoid boating and swimming for the same reason.
- In a forest, seek shelter in a low area under a thick growth of small trees. In open areas, go to a low place such as a ravine or valley, but watch for rising flood waters.

- Get away from open water, tractors and other metal farm equipment, or small metal vehicles such as motorcycles, bicycles, or golf carts.
- If you are caught unawares, and you feel your skin tingle or your hair stand on end, lightning may be ready to strike you. Immediately crouch low to the ground with your hands on your knees. Do not lie flat on the ground. The idea here is to get as low as possible while minimizing contact with the ground.

Once indoors...

- Stay away from windows
- Do not use corded telephone or electrical appliances unless in an emergency.
- Some thunderstorms pack winds over 80 mph. Extreme winds such as these can break windows or even peel the roof off a building. If a thunderstorm with strong wind approaches, seek shelter in an interior room or basement away from windows.
- If you see rain blowing horizontally, the wind likely exceeds 70 mph. Head for the basement or shelter area.

## **Tornado**

Tornadoes occur most often in the spring, during the late afternoon and early evening, but can occur any time of the day and year. Remain alert for signs of an approaching tornado, including large hail, a loud roar (like a freight train), and a rotating wall cloud. When a tornado threatens, immediate action can save your life.

- **In short: Maximize walls between you and the outside of the building and minimize windows.**
- Avoid doors and outside walls. Always protect your head! Remember that flying debris is responsible for most tornado deaths and injuries.
- In homes and small buildings, seek shelter in a basement. If a basement is not available, go to an interior closet, bathroom, or hallway on the lowest floor possible. Get underneath something sturdy.
- In schools, nursing homes, hospitals, factories, and shopping centers, go to pre-designated shelter areas. Interior hallways on the lowest floor are usually the safest.
- In high-rise buildings, go to interior small rooms or hallways.
- Leave mobile homes or vehicles and go to a substantial shelter. If there is not shelter nearby, lie flat in the nearest ditch or depression with your hands shielding your head. Be alert for rapidly rising waters in these low areas!

## **Winter Storm**

Snow covered roadways and/or near-blizzard conditions can catch motorists off-guard. If you become trapped in your automobile:

- Avoid overexertion and exposure. Attempting to push your car, shovel heavy snow drifts, and other difficult chores during a winter storm may cause a heart attack even for someone in apparently good physical condition.

- Stay in your vehicle. Do not attempt to walk out in a snowstorm. Disorientation comes quickly in blowing and drifting snow. You are more likely to be found when sheltered in your car.
- Keep fresh air in your car. Freezing wet snow and wind-driven snow can completely seal the passenger compartment.
- Run the motor and heater sparingly, and only with the downwind window open for ventilation to prevent carbon monoxide poisoning. Make sure the tailpipe is unobstructed.
- Exercise by clapping hands and moving arms and legs vigorously from time to time, and do not stay in one position for long.
- Turn on the dome light at night. It can make your vehicle visible to work crews.
- Keep watch. Do not allow all occupants of the car to sleep at the same time.

## **Fog**

Fog severely impacts aviation operations, bringing air traffic to a halt when visibilities fall below a certain threshold. Fog can also make the morning commute to work or school a slow go, so give yourself plenty of time to reach your destination.

- When driving, use low-beam headlights. High beams actually impair your vision, as the light is reflected into the driver's eyes.
- Slow down and allow plenty of room between your vehicle and the vehicle in front of you.
- Keep the radio volume low and listen for traffic you cannot see.
- Use windshield wipers and defrosters as necessary for maximum visibility.
- Be patient! Do not pass lines of traffic even on a straight stretch of roadway.
- Do not stop on a freeway or heavily traveled road. If your car stalls or becomes disabled, move away from the vehicle to avoid personal injury.
- Consider postponing your trip until the fog clears. Visibilities usually improve by late morning.
- Pedestrians (such as children at a bus stop) should stay clear of roadways, since motorists cannot see them as easily.

## **Boating/Outdoor Activity**

Plan for your outdoor activity several days in advance by monitoring the latest NWS 7-day forecast. While outdoors, stay alert...

- Keep an eye out for the following: the approach of dark, threatening clouds which may signal a squall or thunderstorms; a steadily increasing wind or sea; any developing decrease in visibility such as fog.
- Check radio weather broadcasts for the latest forecasts and warnings.
- Heavy static on your AM radio may be an indication of nearby thunderstorm activity.

If a thunderstorm catches you off guard:

- Remember that not only gusty winds but lightning also pose a threat to safety. Water is an excellent conductor of electricity!
- Head for shore if possible.



- Stay below deck if possible.
- Keep away from metal objects that are not grounded to the boat's protection system.
- Do not touch more than one grounded object simultaneously, or you may become a shortcut for electrical surges passing through the protection system.
- Put on a life jacket and prepare for rough waters.

For more information on weather safety and preparedness, visit the preparedness section of our web site at [www.weather.gov/quadcities/preparedness/](http://www.weather.gov/quadcities/preparedness/).

For downloadable versions of safety information, point your browser to [www.nws.noaa.gov/om/brochures.shtml](http://www.nws.noaa.gov/om/brochures.shtml) for comprehensive safety brochures.

## Appendix A: Severe Weather Descriptors

Hail Diameter	Size Description	Hail Diameter	Size Description
.25"	Pea	1.5"	Ping-pong ball
.50"	Pea	1.75"	Golf ball
.70"	Dime	2"	Hen egg
<b>.75</b>	<b>Penny (severe criteria)</b>	2.5"	Tennis ball
.88"	Nickel	2.75"	Baseball
1"	Quarter	4"	Grapefruit
1.25"	Half Dollar	4.5"	Softball

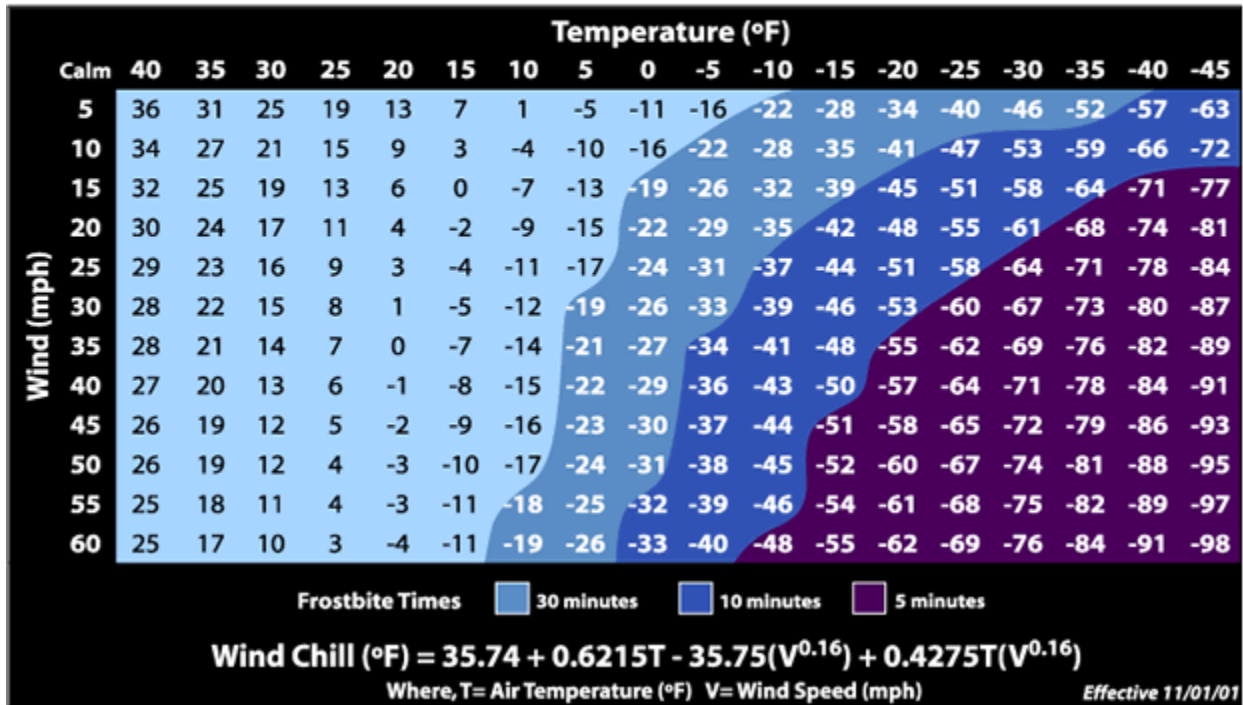
  

F Scale	Wind Speed	Damage Description
EF0	65-85 mph (Light Damage)	Some damage to trees and TV antennas; Shallow rooted trees pushed over. <b>Severe criteria: 58 mph</b>
EF1	86-109 mph (Moderate)	Peels surface off roofs; windows broken; light mobile homes overturned; some trees uprooted or snapped; moving automobiles pushed off road.
EF2	110-137 mph (Significant)	Roofs torn off frame homes; weak buildings and mobile homes destroyed; large trees snapped or uprooted; railroad boxcars pushed over; cars blown off highway.
EF3	138-167 mph (Severe)	Roofs and some walls torn off frame homes; some rural buildings demolished; trains overturned; steel-framed hangars and warehouses torn; most trees uprooted or snapped.
EF4	168-200 mph (Devastating)	Well-constructed frame homes leveled, leaving piles of debris; steel structures badly damaged; trees debarked by fling debris; cars and trains thrown or rolled considerable distances; missiles generated.
EF5	>200 mph (Incredible)	Strong frame houses lifted off foundations and disintegrated; steel-reinforced concrete structures badly damaged; vehicle-sized missiles generated; incredible phenomena can occur.

# Appendix B: Wind Chill Chart



## Wind Chill Chart



# Appendix C: Heat Index Chart

The **Heat Index** (HI) is the temperature the body feels when heat and humidity are combined. The chart below shows the HI that corresponds to the actual air temperature and relative humidity. NOTE: This chart is based upon shady, light wind conditions. **Exposure to direct sunlight can increase the HI by up to 15°F**

Heat Index	General Effect of Heat Index on People in Higher Risk Groups
80 to 89° - Caution	Fatigue possible with prolonged exposure and/or physical activity.
90 to 104° - Extreme Caution	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
105 to 129° - Danger	Sunstroke, heat cramps or heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.
130° or higher - Extreme Danger	Heat/sunstroke highly likely with continued exposure.

**Relative Humidity (in percent)**

	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
120	107	111	116	123	130	139	148														
115	103	107	111	115	120	127	135	143	151												
110	99	102	105	108	112	117	123	130	137	143	150										
105	95	97	100	102	105	109	113	118	123	129	135	142	149								
100	91	93	95	97	99	101	104	107	110	115	120	126	132	138	144						
95	87	88	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136				
90	83	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122		
85	78	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	105	108
80	73	74	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91

**Dew Point (in F)**

	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
104	110	110	110	110	110	110	111	112	113	114	115	116	117	118	119	121	122	124	125	127	128	130	132	133	136	137
102	108	108	108	108	108	108	109	110	110	111	112	113	114	116	117	118	119	121	122	124	126	127	129	131	133	136
100	106	106	106	106	106	106	106	107	108	109	110	111	112	113	114	115	117	118	119	121	123	124	126	128	129	132
98	103	103	103	103	103	103	104	105	105	106	107	108	109	110	111	113	114	115	117	118	120	121	123	125	127	129
96	101	101	101	101	101	101	101	102	103	104	105	106	107	108	109	110	111	112	114	115	117	118	120	122	124	127
94	98	98	98	98	98	98	99	100	100	101	102	103	104	105	106	107	108	109	111	112	114	115	117	119	122	124
92	96	96	96	96	96	96	97	97	98	99	99	100	101	102	103	104	105	106	108	109	110	112	114	116	119	121
90	94	94	94	94	94	94	94	95	95	96	97	98	98	99	100	101	102	103	105	106	107	109	110	113	116	117
88	88	88	88	89	89	90	90	90	91	92	93	94	95	96	97	98	99	100	101	103	104	106	108	110	112	114
86	86	86	87	87	87	88	88	89	89	90	91	91	92	93	94	95	96	97	98	100	101	102	104	106	108	110
84	84	84	85	85	85	86	86	87	87	88	88	89	90	90	91	92	93	94	95	96	97	98	100	103	105	-
82	82	83	83	83	83	84	84	85	85	86	86	87	87	88	88	89	89	90	91	92	93	94	95	-	-	-
80	80	81	81	81	82	82	82	82	83	83	83	83	84	84	85	85	85	86	86	87	87	-	-	-	-	-

## *Appendix D: Active Text Identifiers – 2007*

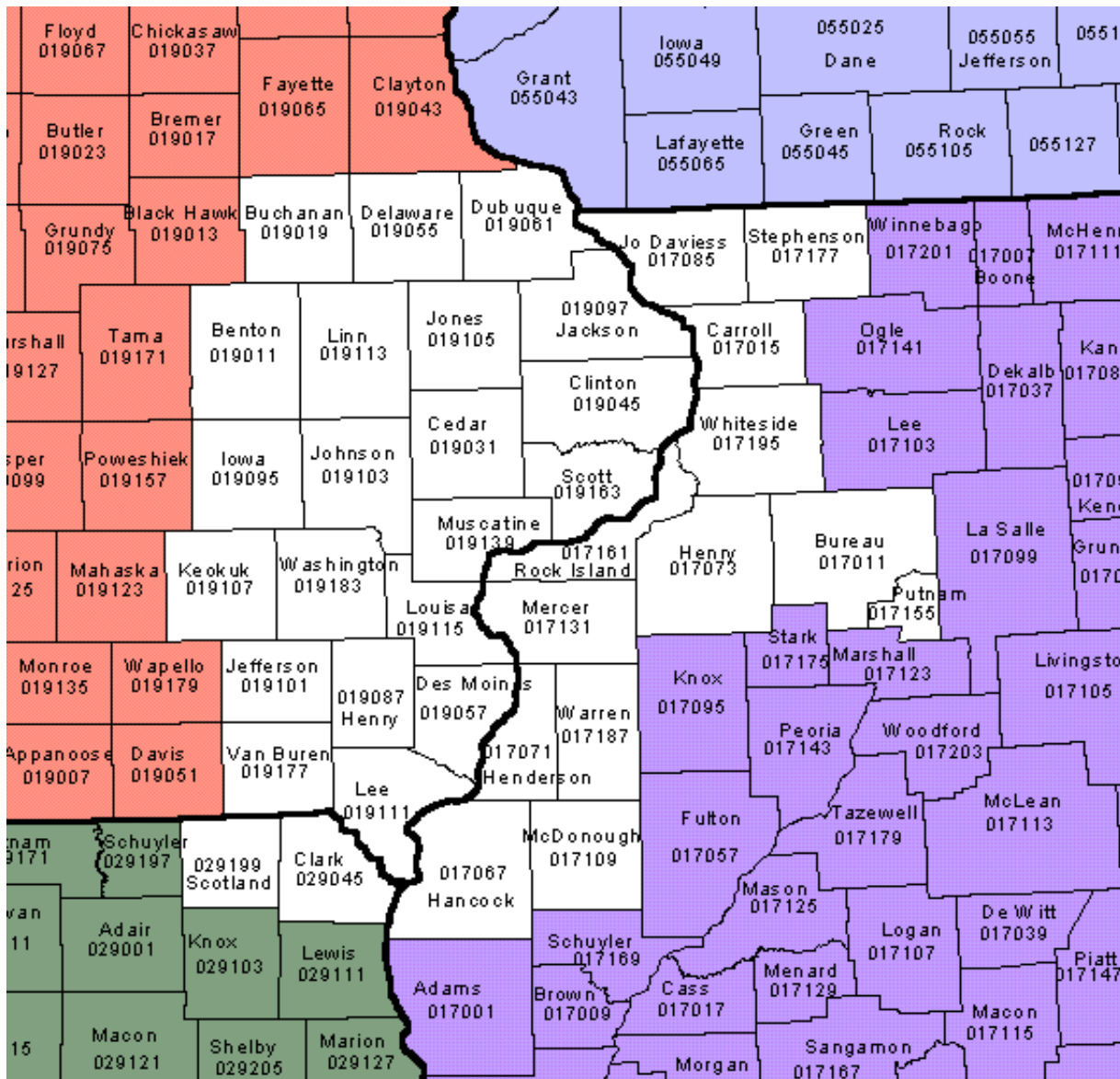
<b>Text Information Type</b>	<b>AWIPS ID</b>	<b>WMO Heading</b>	
911 Telephone Outage Emergency	CHITOEDVN	WOUS43	KDVN
Administrative Message – External	CHIADRDVN	WOUS43	KDVN
Aircraft Accident Report	CHIOAVDVN	NOUS53	KDVN
Aviation Route Forecast CHI-BRL	CHITWB216	FRUS43	KDVN
Aviation Route Forecast CHI-MLI	CHITWB217	FRUS43	KDVN
Aviation Route Forecast MLI VCNTY	CHITWB303	FRUS43	KDVN
Aviation Route Forecast CID VCNTY	DSMTWB305	FRUS43	KDVN
Civil Danger Warning	CHICDWDVN	WOUS43	KDVN
Civil Emergency Message	CHICEMDVN	WOUS43	KDVN
Daily Climate Summary – Dubuque	DSMCLIDBQ	CDUS43	KDVN
Daily Climate Summary - Moline, Burlington, Cedar Rapids, Iowa City, Davenport	CHICLIMLI	CDUS43	KDVN
Daily River Forecast	CHIRVDDVN	FGUS53	KDVN
Daily River Stages	CHIRVADV	SRUS43	KDVN
DVN Freezing Level (upper air)	CHIFZLDVN	UXUS43	KDVN
DVN Mandatory Levels (upper air)	CHIMANDVN	USUS43	KDVN
DVN Significant Levels (upper air)	CHISGLDVN	UMUS43	KDVN
DVN Upper Level Winds (upper air)	CHIABVDVN	UFUS43	KDVN
Earthquake Report	CHIEQRDVN	SEUS63	KDVN
Earthquake Warning	CHIEQWDVN	WOUS43	KDVN
Evacuation Immediate	CHIEVIDVN	WOUS43	KDVN
Fire Warning	CHIFRWDVN	WOUS43	KDVN
Flash Flood Statement	CHIFFSDVN	WGUS73	KDVN
Flash Flood Warning	CHIFFWDVN	WGUS53	KDVN
Flood Potential Outlook	CHIESFDVN	FGUS73	KDVN
Flood Statement	CHIFLSDVN	WGUS83	KDVN
Flood Warning	CHIFLWDVN	WGUS43	KDVN
Flood/Flash Flood Watch	CHIFFADV	WGUS63	KDVN
Hazardous Materials Warning	CHIHMWVDVN	WOUS43	KDVN
Hazardous Weather Outlook	CHIHWODVN	FLUS43	KDVN
Law Enforcement Warning	CHILEWDVN	WOUS43	KDVN
Local Area Emergency	CHILAEDVN	WOUS43	KDVN
Local Storm Report	CHILSRDVN	NWUS53	KDVN
Miscellaneous Hydro Data	CHIRR1DVN	SRUS53	KDVN
Miscellaneous Hydro Data	CHIRR2DVN	SRUS53	KDVN
Miscellaneous Hydro Data	CHIRR3DVN	SRUS53	KDVN
Miscellaneous Hydro Data	CHIRR4DVN	SRUS53	KDVN
Miscellaneous Hydro Data	CHIRR5DVN	SRUS53	KDVN
Miscellaneous Hydro Data	CHIRR6DVN	SRUS63	KDVN
Miscellaneous Hydro Data	CHIRR7DVN	SRUS73	KDVN

<b>Text Information Type</b>	<b>AWIPS ID</b>	<b>WMO Heading</b>	
Miscellaneous Hydro Data	CHIRR9DVN	SRUS83	KDVN
Miscellaneous Hydro Data	CHIRRMDVN	SRUS43	KDVN
Miscellaneous River Product	CHIRVMDVN	SRUS43	KDVN
Monthly Climate Summary - Dubuque	DSMCLMDBQ	CXUS53	KDVN
Monthly/Seasonal Climate Summary	CHICLMMLI	CXUS53	KDVN
Non-Precipitation Watch/Warning/Advisory	CHINPWDVN	WWUS73	KDVN
Nuclear Power Plant Warning	CHINUWDVN	WOUS43	KDVN
Point Forecast Matrix	CHIPFMDVN	FOUS53	KDVN
Public Information Statement	CHIPNSDVN	NOUS43	KDVN
Radar Free Text Message	CHIFTMDVN	NOUS63	KDVN
Radiological Hazard Warning	CHIRHWDVN	WOUS43	KDVN
Record Event Report	CHIRERMLI	SXUS73	KDVN
Record Event Report - Dubuque	DSMRERDBQ	SXUS73	KDVN
Regional Weather Summary	CHIRWSDVN	AWUS83	KDVN
River Statement	CHIRVSDVN	FGUS83	KDVN
Severe Thunderstorm Warning	CHISVRDVN	WUUS53	KDVN
Severe Weather Statement	CHISVSDVN	WWUS53	KDVN
Shelter In Place Warning	CHISPWDVN	WOUS43	KDVN
Short Term Forecast	CHINOWDVN	FPUS73	KDVN
Special Weather Statement	CHISPSDVN	WWUS83	KDVN
Supplemental Climate Data	CHISCDDVN	CXUS63	KDVN
Technical Forecast Discussion	CHIAFDDVN	FXUS63	KDVN
Temperature and Precipitation Table	CHIRTPDVN	ASUS63	KDVN
Terminal Forecast - Burlington	DSMTAFBRL	FTUS43	KDVN
Terminal Forecast - Cedar Rapids	DSMTAFCID	FTUS43	KDVN
Terminal Forecast - Dubuque	DSMTAFDBQ	FTUS43	KDVN
Terminal Forecast - Moline	CHITAFMLI	FTUS43	KDVN
Tornado Warning	CHITORDVN	WFUS53	KDVN
Volcano Warning	CHIVOWDVN	WOUS43	KDVN
Watch County Notification	CHIWCNDVN	WWUS63	KDVN
Winter Storm Watch/Advisory/Warning	CHIWSWDVN	WWUS43	KDVN
Zone Forecast	CHIZFPDVN	FPUS53	KDVN

Information on format of WMO headers: [www.nws.noaa.gov/oso/wmohdg.shtml](http://www.nws.noaa.gov/oso/wmohdg.shtml)

Nationwide list and other information on text product identifiers and dissemination, visit NWS Data Management at [www.nws.noaa.gov/datamgmt/](http://www.nws.noaa.gov/datamgmt/)

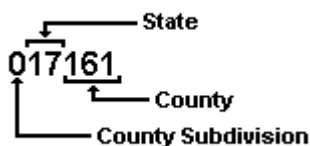
# Appendix E: Area County FIPS Codes



## About FIPS Codes

FIPS codes establish a standard code identifier for each county in the United States.

The full identifier for each county is a 6-digit number; the first digit for the county subdivision (this number should be set to 0; numbers 1 through 9 are NOT yet being used); the next two digits are the FIPS identifier for the state (Illinois is 17, Iowa is 19, Missouri is 29), and the last three digits are for individual counties. So for example, the full 6-digit FIPS code for Rock Island County, shown here, is 017161.



## FIPS Codes for Other Counties

If you need FIPS codes for other counties, visit the [NOAA Weather Radio web site \(www.nws.noaa.gov/nwr/indexnw.htm\)](http://www.nws.noaa.gov/nwr/indexnw.htm) or call 1-888-NWR-SAME.

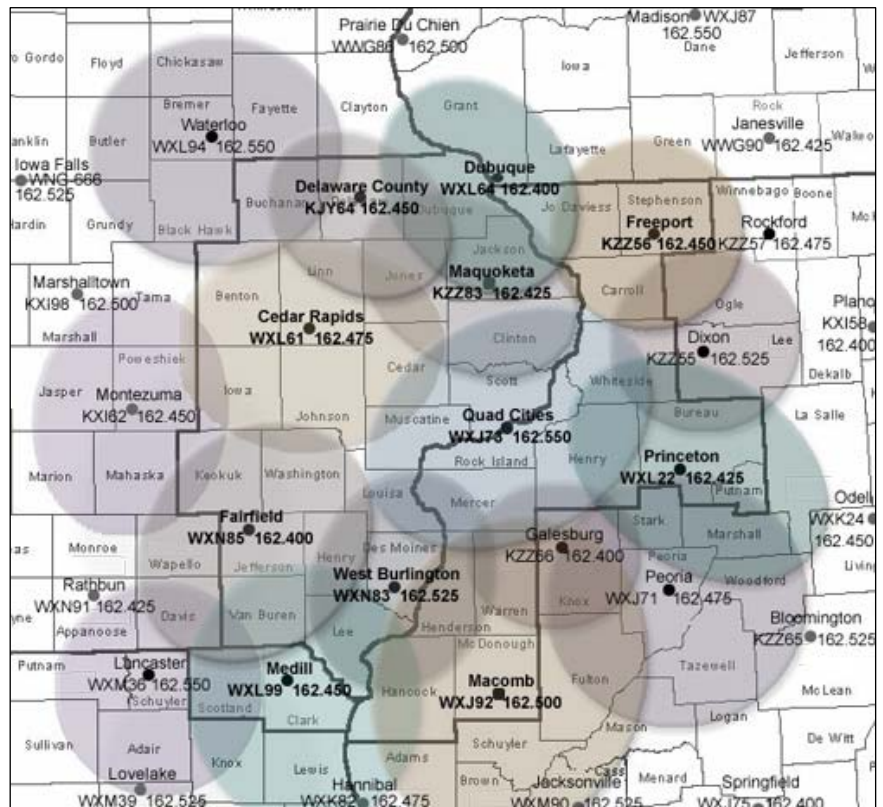
# Appendix F: Local NOAA All-Hazards Radio Coverage

NOAA Weather Radio stations operate on one of 7 frequencies:

1. 162.400 MHz
2. 162.425 MHz
3. 162.450 MHz
4. 162.475 MHz
5. 162.500 MHz
6. 162.525 MHz
7. 162.550 MHz

See below for local area stations and exact county coverage. See reverse side for local FIPS codes.

Call 1-800-NWR-SAME for county FIPS codes used in programmable radios, or visit [www.weather.gov](http://www.weather.gov) for complete information.



<b>Cedar Rapids - WXL61</b>	<b>162.475</b>	<b>Lancaster – WXM36</b>	<b>162.550</b>	<b>Peoria – WXJ71</b>	<b>162.475</b>
Iowa: Benton, Cedar, Delaware, Iowa, Johnson, Jones, Keokuk, Linn, Tama, Washington.		Iowa: Davis, Appanoose. Missouri: Adair, Knox, Putnam, Schuyler, Scotland, Sullivan.		Illinois: Fulton, Knox, Marshall, Mason, Peoria, Putnam, Stark, Tazewell, Woodford.	
<b>Delaware County – KJY64</b>	<b>162.450</b>	<b>Macomb - WXJ92</b>	<b>162.500</b>	<b>Princeton - WXL22</b>	<b>162.425</b>
Iowa: Buchanan, Clayton, Delaware, Dubuque, Fayette, Jones, Linn.		Illinois: Adams, Brown, Cass, Fulton, Hancock, Henderson, Knox, Mason, McDonough, Schuyler, Warren.		Illinois: Bureau, Henry, LaSalle, Lee, Marshall, Putnam, Stark, Whiteside.	
<b>Dixon – KZZ56</b>	<b>162.525</b>	<b>Maquoketa - KZZ83</b>	<b>162.425</b>	<b>Quad Cities - WXJ73</b>	<b>162.550</b>
Illinois: Carroll, Lee, Ogle, Whiteside.		Iowa: Jackson, Dubuque, Jones, Clinton, Cedar, Delaware. Illinois: Carroll, Jo Daviess.		Iowa: Clinton, Cedar, Louisa, Muscatine, Scott. Illinois: Henry, Mercer, Rock Island, Whiteside.	
<b>Dubuque - WXL64</b>	<b>162.400</b>	<b>Medill - WXL99</b>	<b>162.450</b>	<b>Waterloo – WXL94</b>	<b>162.550</b>
Iowa: Clayton, Delaware, Dubuque, Jackson, Jones. Illinois: Carroll, Jo Daviess. Wisconsin: Grant, Lafayette.		Missouri: Clark, Knox, Lewis, Scotland. Iowa: Lee, Van Buren. Illinois: Adams, Hancock.		Iowa: Black Hawk, Bremer, Buchanan, Butler, Chickasaw, Fayette, Floyd, Grundy.	
<b>Fairfield - WXN85</b>	<b>162.400</b>	<b>Montezuma – KXI62</b>	<b>162.450</b>	<b>West Burlington - WXN83</b>	<b>162.525</b>
Iowa: Davis, Henry, Jefferson, Keokuk, Lee, Van Buren, Wapello, Washington.		Iowa: Iowa, Jasper, Keokuk, Mahaska, Marion, Poweshiek, Tama.		Iowa: Des Moines, Henry, Lee, Louisa. Illinois: Hancock, Henderson, Mercer, Warren.	
<b>Freeport - KZZ56</b>	<b>162.450</b>	<b>Galesburg – KZZ66</b>	<b>162.400</b>		
Illinois: Carroll, Jo Daviess, Ogle, Stephenson, Winnebago. Wisconsin: Green, Lafayette.		Illinois: Henry, Knox, Mercer, Warren.			



