

An aerial photograph showing a significant flood event in Cedar Rapids, Iowa. The Cedar River, with muddy brown water, has overflowed its banks and is inundating large areas of green forest and grass. A multi-lane highway bridge spans the river, with water reaching its base. In the background, a residential area with houses and trees is visible, partially surrounded by floodwater. The overall scene depicts a major natural disaster.

# **Don't Test the Waters Cedar Rapids**

**Maren Stoflet, Hydrologist  
National Weather Service - Quad Cities**

# Agenda

- National Weather Service in Iowa
- Flood impacts in Iowa
- Finding flood forecasts & warnings
- Flood safety tips

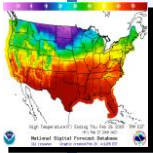


Ames, IA/Iowa State University  
(Associated Press)





# National Weather Service in Iowa



# NWS structure

U.S. Department of  
Commerce (DOC)



National Oceanic and  
Atmospheric Administration  
(NOAA)

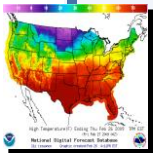


National Weather Service  
(NWS)



*NWS Quad Cities office*

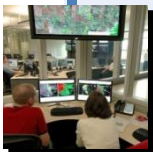
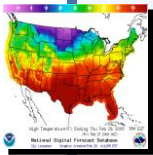
National Weather Service  
*Protecting Lives and Property*



# NWS mission

The National Weather Service provides **weather, water, 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.**

National Weather Service  
*Protecting Lives and Property*

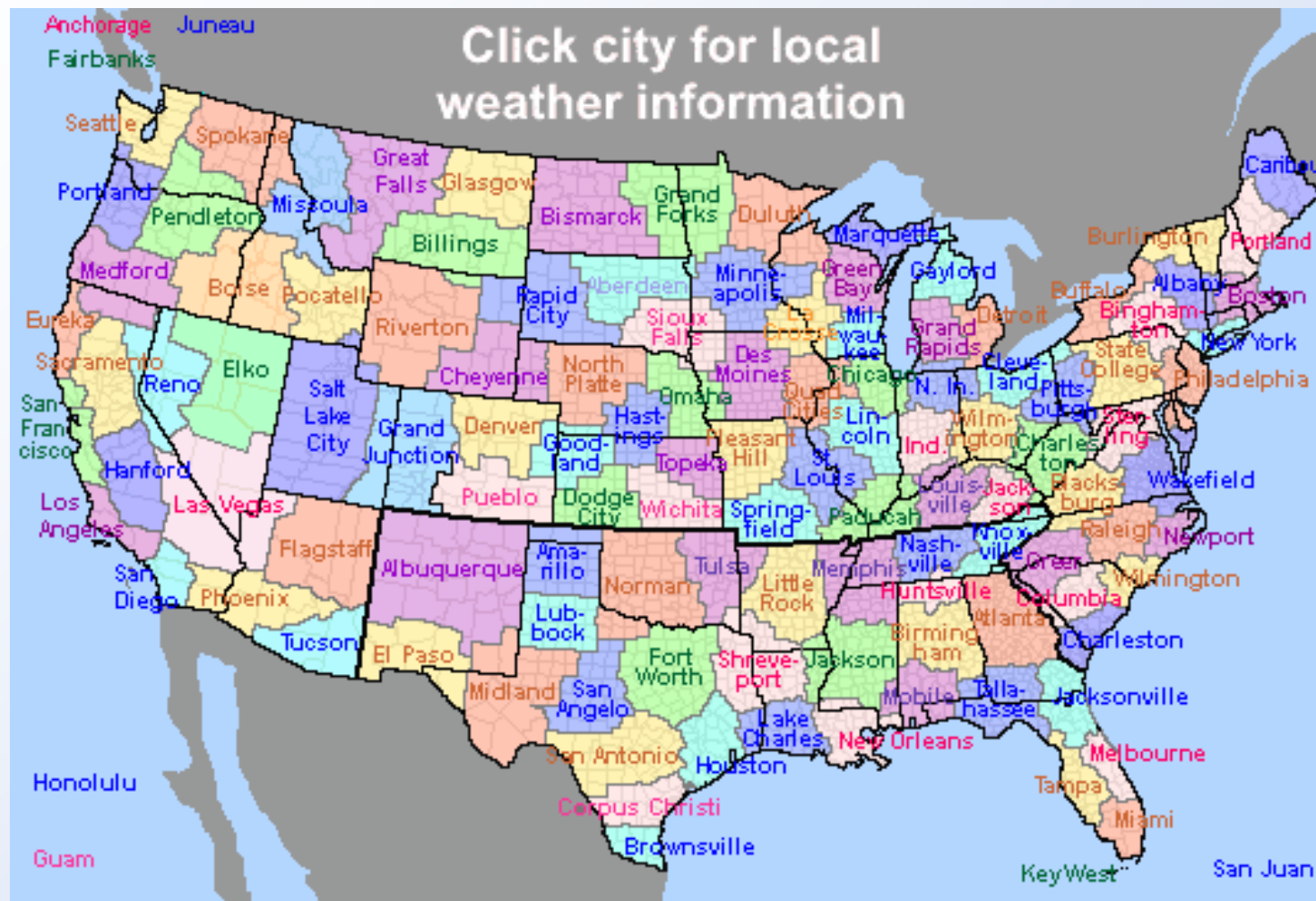


*NWS Quad Cities*

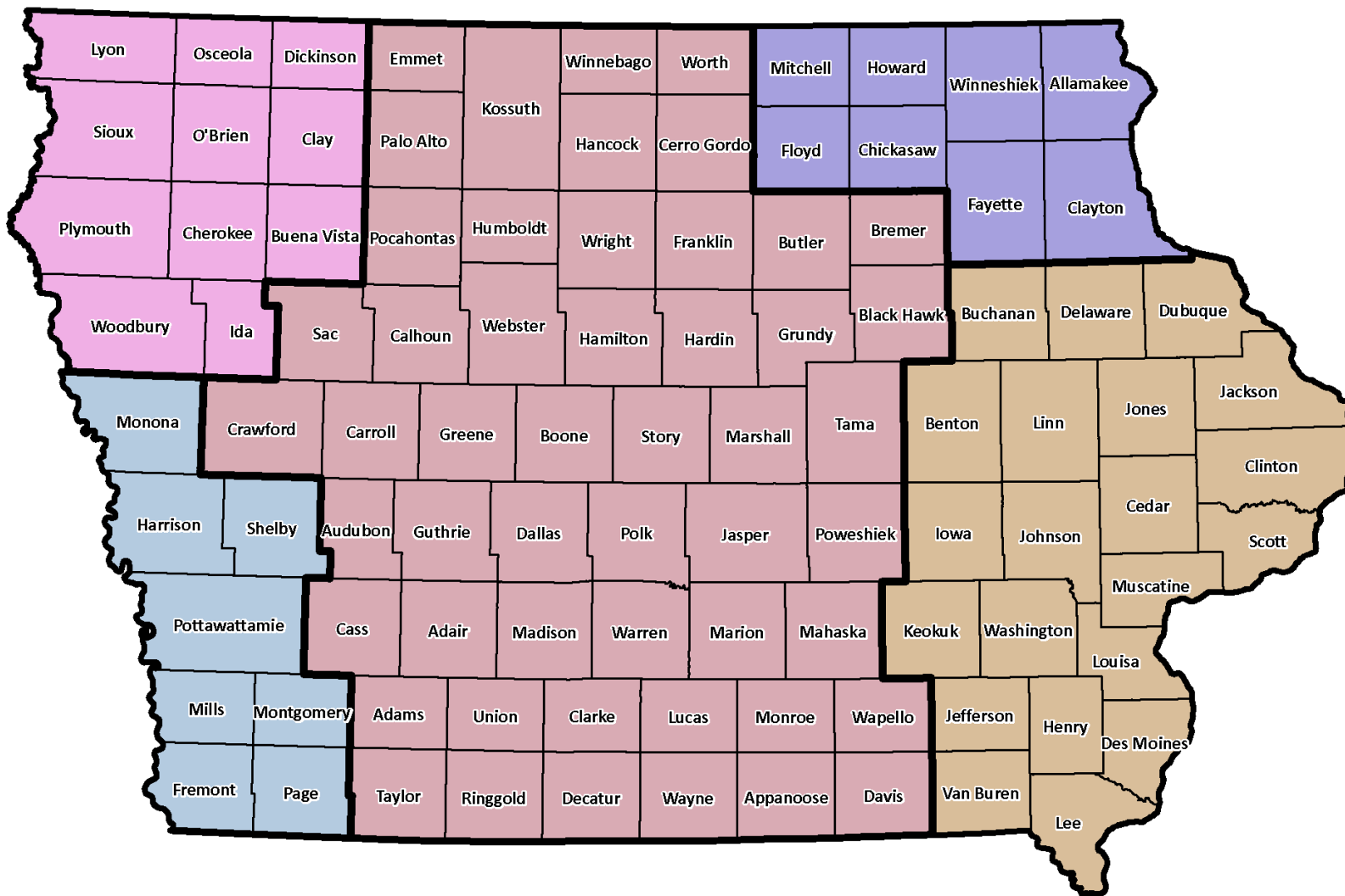




# NWS forecast offices

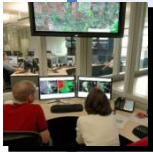
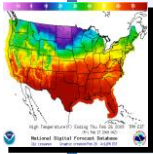


# Iowa Counties & Servicing NWS Offices



Des Moines, IA
  Omaha, NE
  Sioux Falls, SD
  La Crosse, WI
  Quad Cities, IA/IL

# Flood impacts in Iowa





# Flood impacts in Iowa

- Iowa—#2 for flood damage since 1950
- 90% of damage in natural disasters is caused by floods & mud/debris flows
  - *Annually, ~\$5 billion in damage in U.S. (#1)*
  - *Annually, ~90 deaths in U.S.*
- Cedar Rapids, Iowa—2008
  - *~\$3 billion in damage*

Cedar Rapids, IA – June 2008  
IA CAP/HSEM

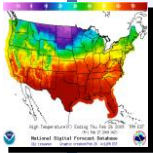


# Finding flood forecasts & warnings


[www.weather.gov](http://www.weather.gov)

<http://water.weather.gov>


[www.weather.gov/quadcities](http://www.weather.gov/quadcities)



# NWS Main Weather page



National Oceanic and Atmospheric Administration's  
**National Weather Service**



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Local forecast by  
"City, St"

City, St  [Go](#)

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Warnings

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GFS-LAMP Prod

Climate

Past Weather

Predictions

Weather Safety

Weather Radio

Hazard Assmt...

StormReady /

TsunamiReady

Skywarn™

Education/Outreach

Information Center

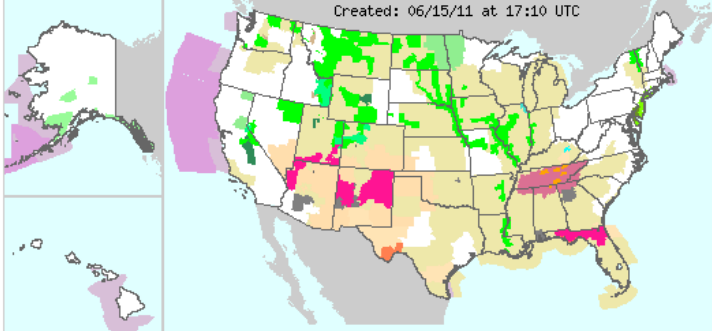
Tsunamis

Publications...

**...Flooding in the Missouri River Basin...**  
Published: Wed, 15 Jun 2011 08:43:21 EDT  
The upper Missouri River Basin, which includes parts of Montana, Wyoming, North and South Dakota and Nebraska, has received 100 to 800 percent of normal precipitation during the past several weeks. Snow pack runoff entering the upper portion of the river system is 212 percent of normal. These conditions have resulted in Missouri basin reservoirs across eastern Montana and the Dakotas nearing their maximum levels. Continued flooding is expected along the Missouri and tributaries for the next several weeks with significant rises possible in areas receiving recent heavy precipitation. [Details...](#)

Warnings & Forecasts   Graphical Forecasts   National Maps   Radar   Water   Air Quality   Satellite   Climate

Warnings By State  [Go](#)   Click Below To Zoom In.   Tabs At A Glance



American Samoa   Guam   Puerto Rico/Virgin Islands

Severe Thunderstorm Warning

Severe Thunderstorm Watch

Severe Weather Statement

Flood Warning

Gale Warning

Hazardous Seas Warning

Red Flag Warning

Flood Advisory

Coastal Flood Advisory

Small Craft Advisory

Brisk Wind Advisory

Lake Wind Advisory

Wind Advisory

Heat Advisory

Flood Watch

Air Quality Alert

Fire Weather Watch

Rip Current Statement

Coastal Flood Statement

Special Weather Statement

Marine Weather Statement

Hazardous Weather Outlook

Hydrologic Outlook

Short Term Forecast

[High Res](#) | [Map FAQ](#) | [Map Comments](#) | [What is UTC?](#)

Warnings   Forecasts   Climate   Information Center   Administrative

Current

State/County

RSS/XML

UV Alerts

Local

Graphical

Aviation

Marine

Past Weather

Predictions

Heating/Cooling Days

Monthly Temps

Tsunamis

Publications

Proper Siting for

Weather Instruments

Headquarters

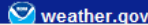
For NWS

Employees

Mission Statement


**We Need Your Feedback, Take Our Weather Survey**

The NWS is undertaking research, once again this year, on how satisfied you are with our products and services and would appreciate your feedback. The purpose of this research is to help the NWS improve its services. The survey will take approximately 20 minutes to complete and need not be finished all at once. We also encourage you to take a moment and complete one or more of the additional sections focused on Climate, Fire Weather, Hydrology, and Tsunamis. [The survey is posted here.](#)






# NWS Quad Cities page



National Weather Service Weather Forecast Office

## Quad Cities, IA/IL

[weather.gov](#)



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Local forecast by "City, St" or Zip Code

City, St

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Fire Weather  
Severe Weather  
Winter Weather  
Hurricane Center

Hydrology  
Rivers & Lakes

Climate  
Local  
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Drought  
More...

Weather Safety  
Preparedness  
Weather Radio  
StormReady

Additional Info  
Items of Interest  
Education Resources  
Coop Observer  
Our Office  
Past Events

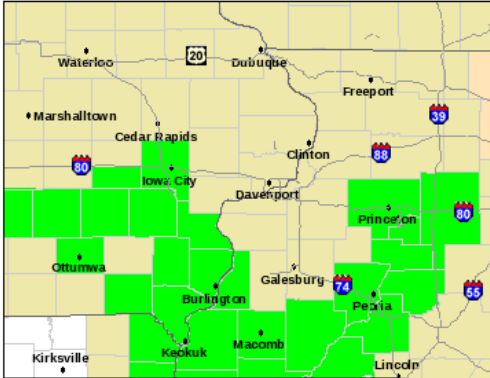
Contact Us  
Contact Info  
Feedback

**Top News of the Day** Recently Issued: [Storm Report](#)

- Flash Flood Warning is in Effect
- 24 Hour Rainfall Reports ending around 10 am June 14
- Iowa Flood Awareness Interagency Coalition to host Community Flood Forum in Cedar Rapids, June 15th
- Additional News Headlines

[Watches & Warnings](#) [Observations](#) [Forecast Graphics](#) [Rivers & Lakes](#) [Climate](#) [Weather Briefing](#)

Click on the map below for the latest forecast.




[Read watches, warnings & advisories](#) [Zoom Out](#)

- Flash Flood Warning
- Flood Warning
- Special Weather Statement
- Hazardous Weather Outlook
- Short Term Forecast

Last map update: Wed, Jun. 15, 2011 at 10:21:21 am CDT

**Latest Conditions in Moline, IL** Choose Your Front Page City



Jun 15  
9:52 am  **69°F**  
(21°C)

Select A City:

[Weather Story](#) [Radar](#) [Satellite](#) [Weather Map](#)

[Daily Climate Maps](#) [Climate Graphs](#) [Climate Outlooks](#)

# NWS Quad Cities Rivers page



## National Weather Service

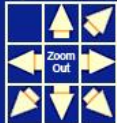
### Advanced Hydrologic Prediction Service

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Local weather forecast by "City, ST"

City, ST  [Go](#)

Adjacent Areas:



**We Need Your Feedback, Take Our Weather Survey**

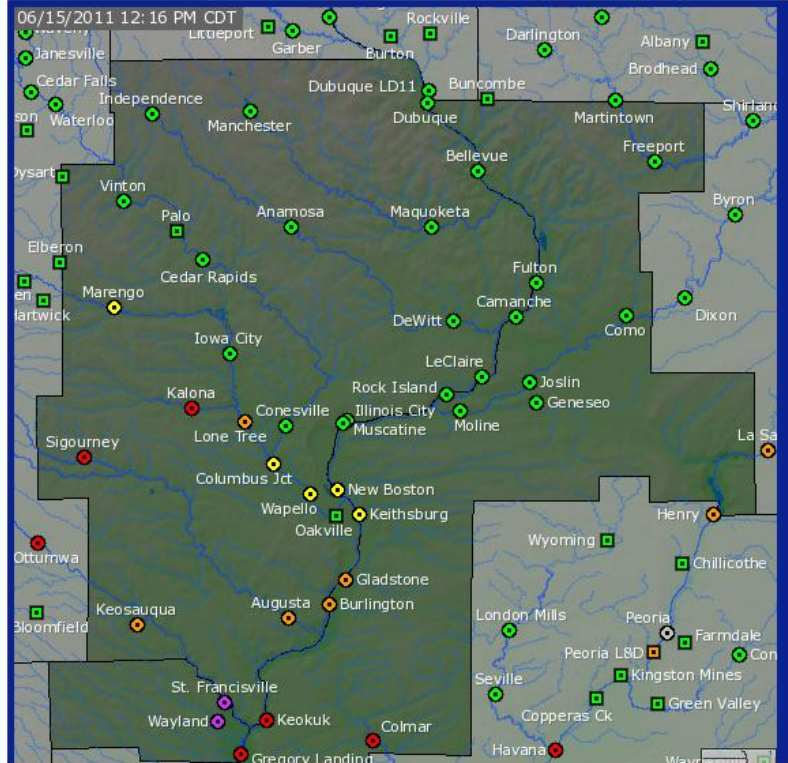
The NWS is undertaking research, once again this year, on how satisfied you are with our products and services and would appreciate your feedback. The purpose of this research is to help the NWS improve its services. The survey will take approximately 20 minutes to complete and need not be finished all at once. We also encourage you to take a moment and complete one or more of the additional sections focused on Climate, Fire Weather, Hydrology, and Tsunamis. [The survey is posted here.](#)

**ALERT!!** A **Flood Warning** is in effect for portions of the area. [View all valid statements/warnings](#) or choose a specific point or river to get the details for that location.

Weather Forecast Office Quad Cities, IA

[River Observations](#) [River Forecasts Within 48 Hours](#) [Precipitation](#) [Download](#)

06/15/2011 12:16 PM CDT



[Print / Save Map](#)

**Map Legend**

- ☐ Hydrograph Available
- ☐ Probability and Hydrograph Available
- Major Flooding
- Moderate Flooding
- Minor Flooding
- Near Flood Stage
- No Flooding
- Observation More Than 24 Hours Old
- Out of Service

**National Conditions**

- Rivers
- Satellite
- Climate
- Observed Precip

**Local Conditions**

- Warnings
- Weather Forecast
- Radar

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- User Guide
- User Brochure


**What is AHPS?**

- Facts
- Our Partners

**Feedback/Questions**

- Provide Feedback
- Ask Questions

 **FLOODSMART.GOV**  
Official site of the National Flood Insurance Program

 **USA.gov**  
Government Made Easy

# NWS Quad Cities



## Cedar River at Cedar Rapids page





# NWS Quad Cities

## Local Area forecast page


Your **National Weather Service** forecast











Cedar Rapids IA

NWS Quad Cities, IA/IL
 Mobile Weather Information | [En Español](#)

**Point Forecast:** Cedar Rapids IA  
 41.97°N 91.66°W (Elev. 731 ft)
 Last Update: 9:55 am CDT Jun 15, 2011

Forecast Valid: 1pm CDT Jun 15, 2011-6pm CDT Jun 21, 2011

**Forecast at a Glance**

This Afternoon	Tonight	Thursday	Thursday Night	Friday	Friday Night	Saturday	Saturday Night	Sunday
								
30% Chance Showers	Patchy Fog	Patchy Fog	30% Chance Tstms	30% Chance Tstms	50% Chance Tstms	30% Chance Tstms	Slight Chc Tstms	Slight Chc Tstms
Hi 76 °F	Lo 57 °F	Hi 81 °F	Lo 64 °F	Hi 81 °F	Lo 68 °F	Hi 81 °F	Lo 70 °F	Hi 87 °F

**Detailed 7-day Forecast**

**Current Conditions**
[Move Down]

Hazardous weather condition(s):
 view [Yesterday's Weather](#)

**Hazardous Weather Outlook**

**This Afternoon:** A 30 percent chance of showers and thunderstorms. Partly sunny, with a high near 76. West wind between 10 and 15 mph, with gusts as high as 20 mph.

**Tonight:** Patchy fog after 3am. Otherwise, partly cloudy, with a low around 57. West wind between 5 and 10 mph.

**Thursday:** Patchy fog before 7am. Otherwise, mostly sunny, with a high near 81. West wind between 5 and 10 mph.

**Thursday Night:** A 30 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 64.

**Friday:** A 30 percent chance of showers and thunderstorms. Partly sunny, with a high near 81.

**Friday Night:** A 50 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 68. New rainfall amounts between a quarter and half of an inch possible.

**Saturday:** A 30 percent chance of showers and thunderstorms. Mostly cloudy, with a high near 81.

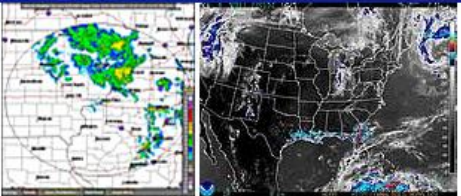
**Overcast and Breezy**

64 °F  
(18 °C)

**Cedar Rapids, The Eastern Iowa Airport**  
 Lat: 41.89 Lon: -91.7 Elev: 840  
 Last Update on Jun 15, 11:52 am CDT

Humidity: 87 %  
Wind Speed: W 21 MPH  
Barometer: 29.66" (1003.9 mb)  
Dewpoint: 60 °F (16 °C)  
Visibility: 7.00 mi.  
More Local Wx: 3 Day History:

**Radar and Satellite Images**



**Detailed Point Forecast**
[Move Up]

Click Map for Forecast
 Disclaimer

# NWS Quad Cities

## Local Area forecast page (cont.)

**Friday Night:** A 50 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 68. New rainfall amounts between a quarter and half of an inch possible.

**Saturday:** A 30 percent chance of showers and thunderstorms. Mostly cloudy, with a high near 81.

**Saturday Night:** A slight chance of showers and thunderstorms. Mostly cloudy, with a low around 70.

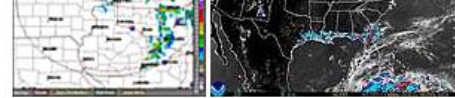
**Sunday:** A slight chance of showers and thunderstorms. Partly sunny, with a high near 87.

**Sunday Night:** A slight chance of showers and thunderstorms. Mostly cloudy, with a low around 71.

**Monday:** A slight chance of showers and thunderstorms. Partly sunny, with a high near 86.

**Monday Night:** A chance of showers and thunderstorms. Partly cloudy, with a low around 69.

**Tuesday:** A slight chance of showers and thunderstorms. Partly sunny, with a high near 82.



### Detailed Point Forecast

[\[Move Up\]](#)

[Click Map for Forecast](#)

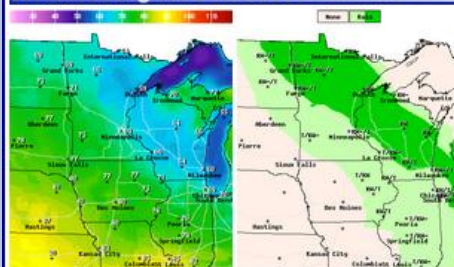
[Disclaimer](#)



Requested Location Forecast Area  
Lat/Lon: 41.97°N 91.66°W Elevation: 731 ft



### National Digital Forecast Database



### Additional Forecasts & Information

[Zone Area Forecast for Linn County, IA](#)

[Forecast Discussion](#) [Air Quality Forecasts](#)

[Printable Forecast](#) [Text Only Forecast](#)

[Hourly Weather Graph](#) [Tabular Forecast](#)

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[International System of Units About Point Forecasts](#)

[Hazardous Weather Outlook](#) [Public Information Statement](#)

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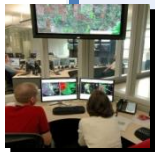
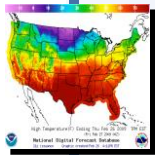
[Regional Weather Summary](#)

Webmaster  
National Weather Service:  
Quad Cities, IA/IL

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# Flood safety tips





# Flood safety tips

- **Know the threat**
  - *Flood vs. flash flood*
  - *What, where & when*
- **Listen for more information**
  - *NOAA Weather Radio, television & radio stations, etc.*
- **Be prepared**
  - *To evacuate quickly*
  - *To move to higher ground quickly*



Photo Courtesy Angi Jones

Marion, IA – July 2010  
(KGAN)



# Flood safety tips

- **Stay away from floodwaters**
  - *6" of moving water*
  - *Includes children!*
- **Turn around don't drown!**
  - *2 ft of moving water*
- **Be especially cautious at night**





A photograph of a flooded street in Davenport, IA, during a flood event in June 2008. The water is murky brown and reaches up to the windows of a brick building in the background. A yellow fire hydrant is partially submerged in the foreground. A red diamond-shaped sign that reads "ROAD CLOSED AHEAD" stands in the water. A black lamppost is also visible on the right side of the frame. The scene is surrounded by green trees and some yellow flowers in the water.

# Thank you

[www.weather.gov/quadcities](http://www.weather.gov/quadcities)

[www.floodsafety.noaa.gov](http://www.floodsafety.noaa.gov)