



# **Don't Test the Waters Des Moines**

**Jeff Zogg, Senior Hydrologist  
NWS Des Moines, Iowa**

*Iowa Hwy 92—Muchakinock Creek near Oskaloosa, IA  
(NWS Des Moines)*

# Agenda

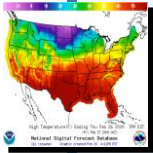
- National Weather Service in Iowa
- Flood impacts in Iowa
- Finding flood forecasts & warnings
- Flood safety tips



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)

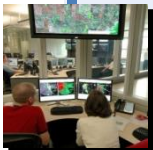
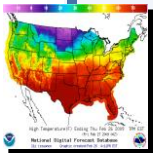


National Weather Service  
(NWS)



*NWS Des Moines office*

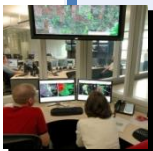
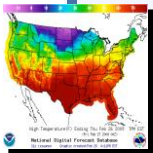
National Weather Service  
*Protecting Lives and Property*



# 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*

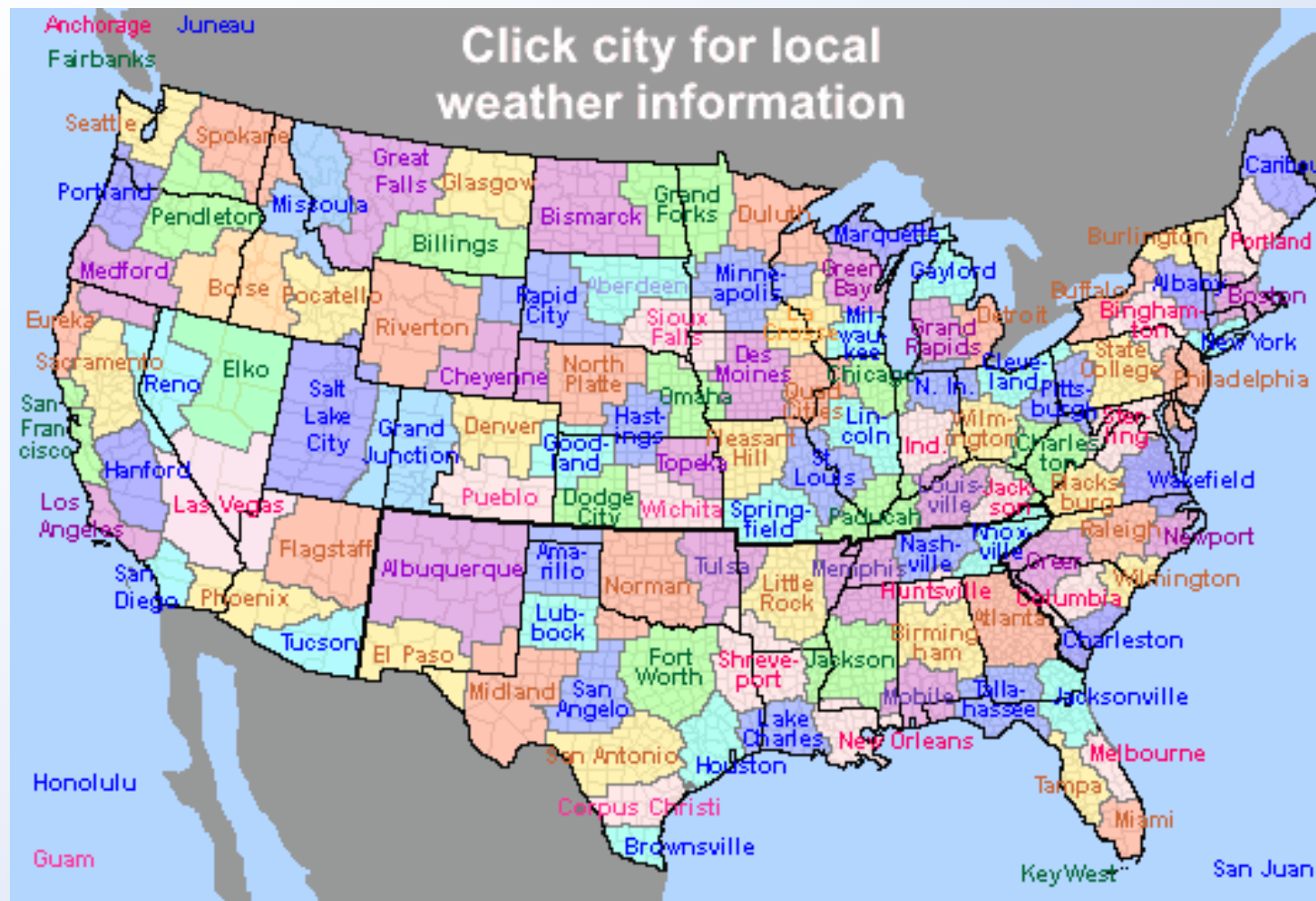


*NWS Des Moines*

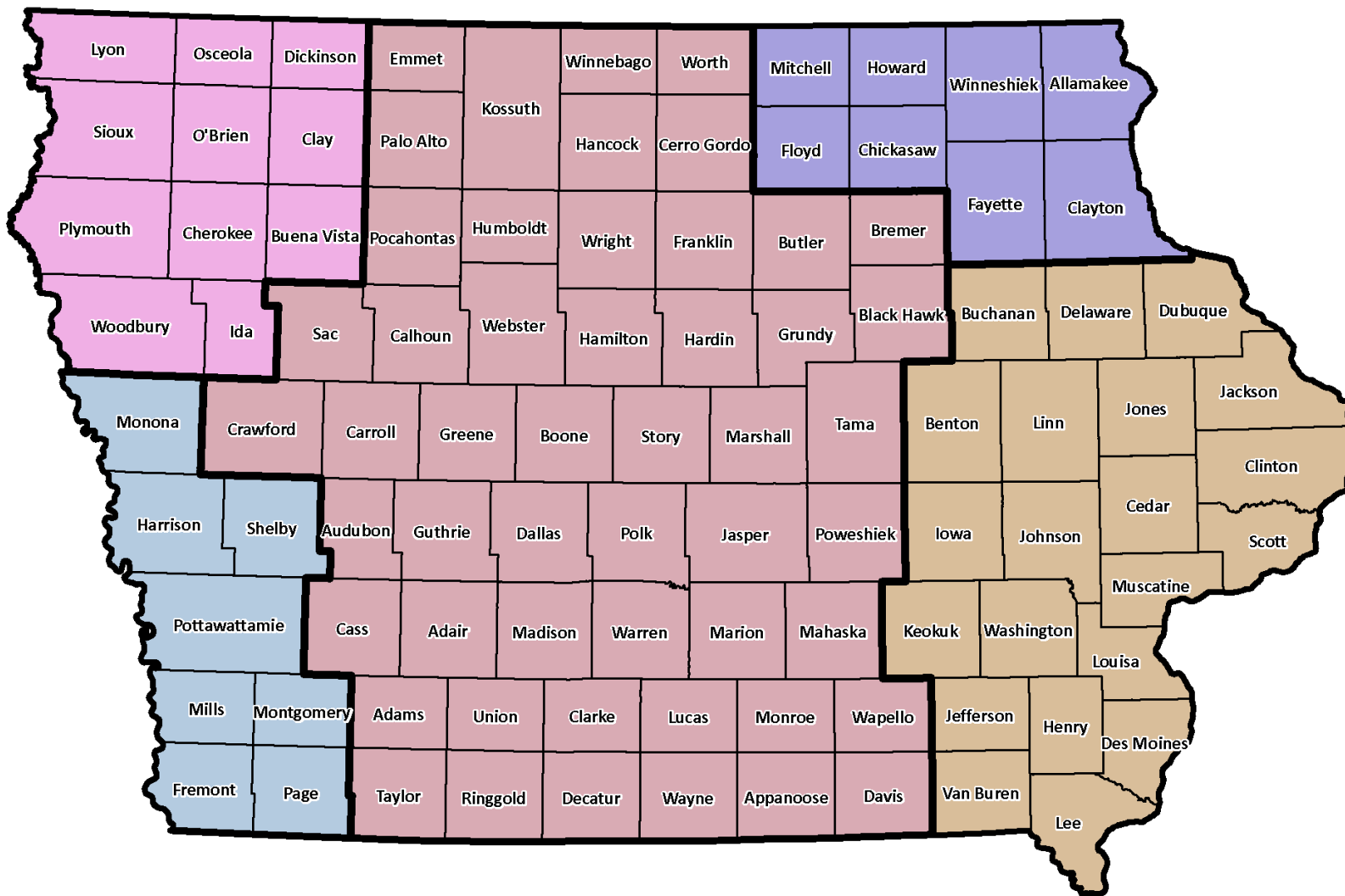


# National Weather Service

## Protecting Lives and Property

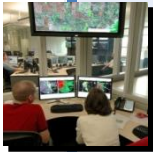
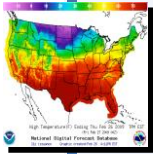


# Iowa Counties & Servicing NWS Offices



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

# Flood impacts in Iowa



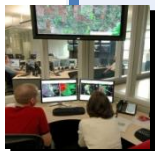
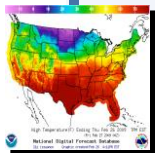


# Flood impacts in Iowa

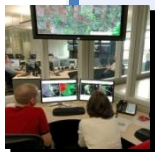
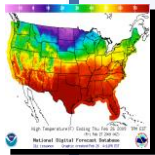
- Iowa—#2 for flood damage since 1950
- 90% of damage in natural disasters is caused by floods & mud/debris flows
  - *Annually, ~\$5 billion in damage in U.S. (#1)*
  - *Annually, ~90 deaths in U.S.*
- Cedar Rapids, Iowa—2008
  - *~\$3 billion in damage*



Colfax, IA—August 2010



# Finding flood forecasts & warnings



NOAA's National Weather Service - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.weather.gov/

NOAA's National Weather Service

weather.gov

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

Site Map News Organization Search  NWS All NOAA Go

Local forecast by "City, St"

Sign-up for Email Alerts

**XML** RSS Feeds

Warnings

Current

By State/County...

UV Alerts

Observations

Radar

Satellite

Snow Cover

Surface Weather...

Observed Precip

Forecasts

Local

Graphical

Aviation

Marine

Hurricanes

Severe Weather

Space Weather

Fire Weather

Text Bulletins

By State

By Message Type

National

Forecast Models

Numerical Models

Statistical Models...

MOS Prod

GFS-LAMP Prod

Climate

Past Weather

Predictions

Weather Safety

Weather Radio

Hazard Assmt...

StormReady /

TsunamiReady

Skywarn™

Education/Outreach

Information Center

Done

...Historic Tornado Outbreak Across the South...

Expert analysis by NOAA Research and the National Weather Service indicate that there were a total of 312 tornadoes during the entire outbreak from 8 am EDT April 26 to 8 am April 28. There were an estimated 226 tornadoes during the 24 hour-period from 8 am April 27 to 8 am April 28 from this tornado. [Details...](#)

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

Warnings By State   Click Below To Zoom In. Tabs At A Glance

Created: 05/02/11 at 18:18 UTC

American Samoa • Guam • Puerto Rico/Virgin Islands

Flash Flood Warning	Winter Weather Advisory	Gale Watch
Civil Emergency Message	Flood Advisory	Freeze Watch
High Wind Warning	Small Craft Advisory	Coastal Flood Statement
Flash Flood Watch	Lake Wind Advisory	Special Weather Statement
Flood Warning	Wind Advisory	Hazardous Weather Outlook
Gale Warning	Frost Advisory	Hydrologic Outlook
Freeze Warning	Flood Watch	Short Term Forecast

High Res | Map FAQ | Map Comments | What is UTC?

Warnings	Forecasts	Climate	Information Center	Administrative
Current	Local	Past Weather	Tsunamis	Headquarters
State/County	Graphical	Predictions	Publications	For NWS
RSS/XML	Aviation	Heating/Cooling Days	Proper Sting for	Employees
UV Alerts	Marine	Monthly Temps	Weather Instruments	Mission Statement
	River/Stream	Records	Damage/Fatality/Injury	Strategic Plan
<b>Observations</b>	Hurricanes	Long Range Forecasts	Statistics	Headline Archive
Radar	Severe Weather	Astronomical Data	Admin maps/charts	International
Satellite	Fire Weather		Brochures	Legislative Affairs
Snow Cover	Sun/Moon	<b>Education/Outreach</b>	Digital Forecast Info	National Centers

FEMA

Spanish

Are you a disaster survivor?

**Apply for Assistance**

- Full Site, Mobile Site
- Call (800) 621-3362
- TTY (800) 462-7585

3 Step Guide for Assistance

State Disaster Pages, Recovery Tips

Disaster Recovery Centers

DisasterAssistance.gov  
ACCESS TO DISASTER HELP AND RESOURCES

FEMA Blog |

SHARE



NWS Des Moines, IA - Mozilla Firefox

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http://www.crh.noaa.gov/dmx/

NWS Des Moines, IA

weather.gov

National Weather Service Weather Forecast Office  
Des Moines, IA

Home Site Map News Organization Search for:  NWS All NOAA Go

Local forecast by "City, St" or Zip Code

City, St  Go

XML RSS Feeds

Current Hazards  
Watches/Warnings  
Outlooks  
Submit Report

Current Conditions  
Observations  
Radar  
Satellite  
Snow Cover  
Snowfall Analysis  
Precip Analysis

Forecasts  
Forecast Discussion  
Local Area  
Activity Planner  
Aviation Weather  
Fire Weather  
Severe Weather  
Winter Weather  
Hurricane Center

Hydrology  
Rivers & Lakes

Climate  
Local  
National  
Drought  
More...

Weather Safety  
Preparedness  
Weather Radio  
StormReady  
SkyWarn

Additional Info  
Items of Interest  
Education Resources  
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Our Office

Contact Us  
Contact Info

Top News of the Day

National April 2011 Tornado Information

Watches & Warnings Observations Forecast Graphics Rivers & Lakes Climate Fire Weather

Click on the map below for the latest forecast.



Read watches, warnings & advisories

Flood Warning

Hazardous Weather Outlook

Zoom Out

Last map update: Mon, May 2, 2011 at 1:22:15 pm CDT

Latest Conditions in Des Moines, IA

Choose Your Front Page City

May 2  
12:54 pm  
A Few Clouds  
56°F  
(13°C)

Select A City:

Weather Story Radar Satellite Weather Map

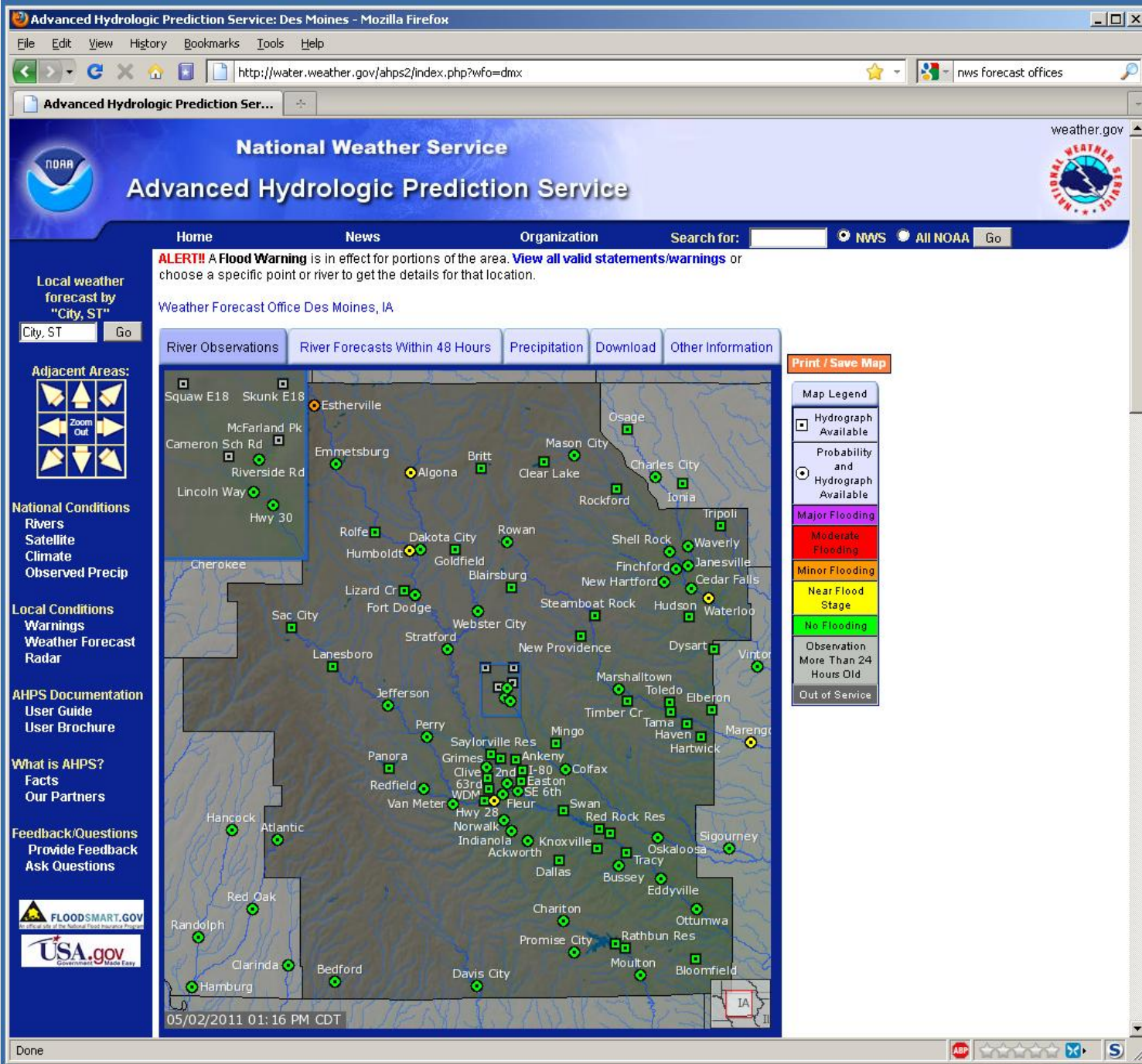
On this day in Iowa weather history...

1908: The last several days of April and first few days of May saw unseasonably cold weather across Iowa, with light snow falling over much of the state on April 26-27 and several rounds of frost and freezing temperatures following through May 3rd. Temperatures bottomed out on the 2nd dropping below freezing at nearly every station in the state. Washta reported a morning low of 13 F which remains the coldest reading on record in Iowa in the month of May. Other low temperatures included 17 F at Atlantic, 18 F at Harlan, and 19 F at Bedford and Little Sioux. Damage to fruit crops

http://water.weather.gov/ahps2/index.php?wfo=dmx











7-Day Forecast for Latitude 41.56°N and Longitude 93.6°W - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://forecast.weather.gov/MapClick.php?CityName=Des+Moines&state=IA&site=DMX&textField1=41.5767& nws forecast offices

7-Day Forecast for Latitude 41.56°N ...



## Your National Weather Service forecast

### Des Moines IA

Enter Your "City, ST" or zip code  Go

BOOKMARK f t e

NWS Des Moines, IA **Point Forecast:** Des Moines IA **Mobile Weather Information | En Español**  
 41.56°N 93.6°W **Last Update:** 8:25 am CDT May 3, 2011  
**Forecast Valid:** 9am CDT May 3, 2011-6pm CDT May 9, 2011

#### Forecast at a Glance

Today	Tonight	Wednesday	Wednesday Night	Thursday	Thursday Night	Friday	Friday Night	Saturday
								
Sunny	Mostly Clear	Mostly Sunny	50% Chance Showers	30% Chance Showers	Partly Cloudy	Mostly Sunny	40% Chance Tstms	Partly Sunny
Hi 58 °F Lo 40 °F	Hi 40 °F	Hi 67 °F	Lo 49 °F	Hi 66 °F	Lo 42 °F	Hi 70 °F	Lo 51 °F	Hi 68 °F

#### Detailed 7-day Forecast

Hazardous weather condition(s):

**Hazardous Weather Outlook**

**Today:** Sunny, with a high near 58. North northwest wind between 8 and 11 mph.

**Tonight:** Mostly clear, with a low around 40. North northwest wind between 5 and 8 mph becoming calm.

**Wednesday:** Mostly sunny, with a high near 67. South southeast wind between 5 and 14 mph, with gusts as high as 18 mph.

**Wednesday Night:** A 50 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 49. South southwest wind between 9 and 15 mph, with gusts as high as 18 mph. New rainfall amounts between a tenth and quarter of an inch, except higher amounts possible in thunderstorms.

**Thursday:** A chance of showers. Partly sunny, with a high near 66. Breezy, with a west wind between 8 and 16 mph. Chance of precipitation is 30%. New rainfall amounts of less than a tenth of an inch possible.

**Thursday Night:** Partly cloudy, with a low around 42.

**Friday:** Mostly sunny, with a high near 70.

#### Current Conditions

[Move Down]

view [Yesterday's Weather](#)

**Des Moines International Airport**  
 Lat: 41.54 Lon: -93.65 Elev: 957  
 Last Update on May 3, 7:54 am CDT

Humidity:	62 %
Wind Speed:	N 7 MPH
Barometer:	30.33" (1027.5 mb)
Dewpoint:	25 °F (-4 °C)
Wind Chill:	32 °F (0 °C)
Visibility:	10.00 mi.

**'A Few Clouds'**

37 °F  
(3 °C)

**More Local Wx:** [3 Day History](#)

#### Radar and Satellite Images

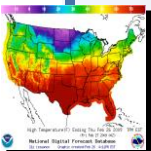


#### Detailed Point Forecast

[Move Up]

[Click Map for Forecast](#) [Disclaimer](#)

Transferring data from mt0.google.com...



7-Day Forecast for Latitude 41.56°N and Longitude 93.6°W - Mozilla Firefox

File Edit View History Bookmarks Tools Help

<http://forecast.weather.gov/MapClick.php?CityName=Des+Moines&state=IA&site=DMX&textField1=41.5767&...>

7-Day Forecast for Latitude 41.56°N ...

thunderstorms.

**Thursday:** A chance of showers. Partly sunny, with a high near 66. Breezy, with a west wind between 8 and 16 mph. Chance of precipitation is 30%. New rainfall amounts of less than a tenth of an inch possible.

**Thursday Night:** Partly cloudy, with a low around 42.

**Friday:** Mostly sunny, with a high near 70.

**Friday Night:** A 40 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 51.

**Saturday:** Partly sunny, with a high near 68.

**Saturday Night:** Partly cloudy, with a low around 50.

**Sunday:** Mostly sunny, with a high near 69.

**Sunday Night:** Partly cloudy, with a low around 53.

**Monday:** Partly sunny, with a high near 69.

Detailed Point Forecast

[Move Up]

Click Map for Forecast Disclaimer

Map Satellite Terrain

Requested Location

Forecast Area

Lat/Lon: 41.56°N 93.6°W

Elevation: 886 ft

XML

National Digital Forecast Database

Additional Forecasts & Information

Zone Area Forecast for Polk County, IA

Forecast Discussion

Air Quality Forecasts

Printable Forecast

Text Only Forecast

Hourly Weather Graph

Tabular Forecast

Quick Forecast

International System of Units

About Point Forecasts

Hazardous Weather

Graphical Forecasts

Weather Activity Planner

30/90 Day Outlook

Air Quality

Ultraviolet

Past Weather Information

River Info/AHPS

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National Weather Service:

Des Moines, IA

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www.weather.gov

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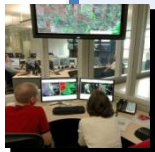
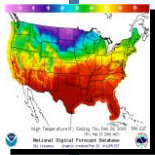
Disclaimer

Credits

16



# Flood safety tips

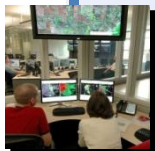
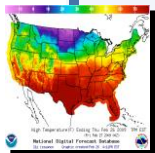


# Flood safety tips

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



*Mud Creek fatality—Des Moines, IA  
(KCCI-TV8)*



# 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**







**Thank you**

<http://www.weather.gov/desmoines>

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