



Dispatcher Training

Working with the National Weather Service



All Photos Courtesy
KCCI uLocal Page





Dispatcher Training

- The National Weather Service (NWS)
- Our role and services
- Severe weather 101
- What the NWS needs to know from dispatchers
- When to contact the NWS
- Optimizing communication
- Case Study





The National Weather Service

Who we Are...

Federal government
weather forecast agency

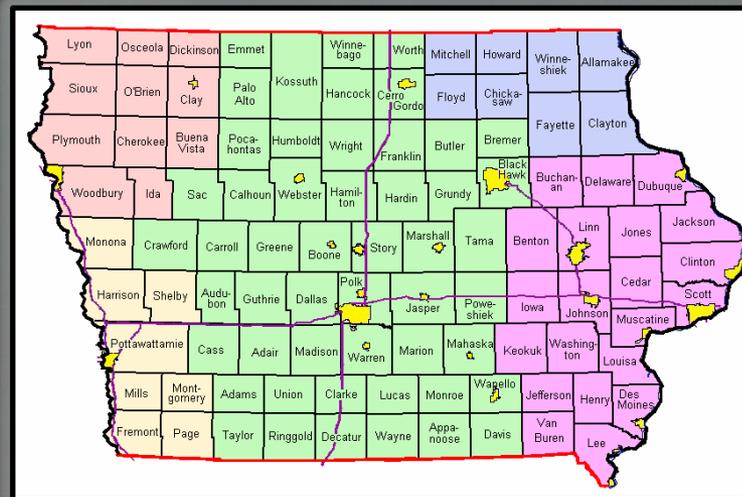
Who we Serve...

- United States & Territories
- Five Offices Serve Iowa

Primary Mission...

Provide weather warnings for the
protection of life and property

**As a dispatcher, you help us
accomplish this mission!**





The National Weather Service

Office Staffing and Operations

- Total staff of 23 people
- 24 hour shift coverage
- Rotating shifts
- Provides continuous warning and forecast services

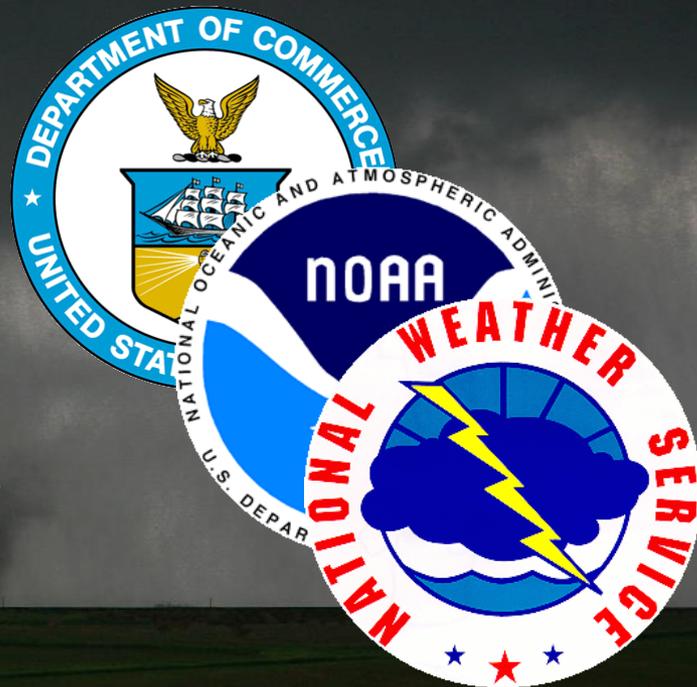




Our Role and Services

National Weather Service Mission Statement

"The National Weather Service (NWS) 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."





Our Role and Services

- We can't stop storms!
- We can't knock on every door and tell them it's coming!
- What can we do?



How can we protect property and save lives?





Our Role and Services

- Preparedness
- Forecast and warning services
- Dissemination of emergency messages



Our goal is for people to make informed and educated decisions for themselves!





NWS Website

www.weather.gov/desmoines

“One Stop Shop”

- Access to all outlooks, watches, and warnings
- Submit spotter reports
- Can view radar data with warning polygons
- Seven day forecast
- ...and much more

The screenshot displays the NOAA National Weather Service website for Des Moines, IA. The page features a navigation menu on the left with categories such as Local forecast, Current Hazards, Current Conditions, Radar Imagery, Forecasts, and Climate. The main content area includes a 'Top News of the Day' section with links to 'Frost and Freeze Product Update', 'Winter Weather Awareness Day is November 13, 2008', and 'New Winter Weather Warning and Advisory Products'. Below this is a 'Watches & Warnings' section with a map showing the latest radar data for the Des Moines area. The map includes labels for various cities like Goodland, Colby, Tribune, Scott City, Garden City, Ulysses, Liberal, Cuyamoc, and Perinton. The current conditions for Des Moines, IA, are shown as 'Clear' with a temperature of 56°F (13°C) on October 16 at 1:54 pm. The page also includes a 'Day One Severe Outlook' and a 'Historical Climate Plot' for KDSM.





Forecast Services

- Gridded Forecasts for the entire United States
- National Digital Forecast Database (NDFD)
- All “worded” forecasts fall out of the NDFD
- NWS Website for best access

3 MILES NNW KELLEY IA En Español

 Fair
58°F
14°C

Humidity 56%
Wind Speed NW 8 mph
Barometer 30.15 in (1020.9 mb)
Dewpoint 42°F (6°C)
Visibility 8.00 mi
Last Update on 20 Nov 1:53 pm CST

Current conditions at
Ames Municipal Airport (KAMW)
Lat: 41.99 Lon: -93.62 Elev: 955ft.
[More Local Wx](#) | [3 Day History](#) | [Mobile Weather](#) | [Share](#)

THIS AFTERNOON	TONIGHT	WEDNESDAY	WEDNESDAY NIGHT	THANKSGIVING DAY	THURSDAY NIGHT	FRIDAY	FRIDAY NIGHT	SATURDAY
 Sunny High: 57 °F	 Clear Low: 36 °F	 Sunny High: 67 °F	 Mostly Clear Low: 45 °F	 Breezy High: 64 °F	 Breezy Low: 32 °F	 Breezy High: 39 °F	 Partly Cloudy Low: 23 °F	 Mostly Sunny High: 40 °F

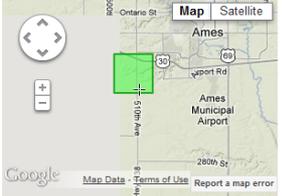
7-DAY FORECAST

This Afternoon	Sunny, with a high near 57. West wind 3 to 6 mph.
Tonight	Clear, with a low around 36. Light and variable wind becoming south around 6 mph in the evening.
Wednesday	Sunny, with a high near 67. South wind 7 to 14 mph, with gusts as high as 18 mph.
Wednesday Night	Mostly clear, with a low around 45. South wind 10 to 14 mph, with gusts as high as 18 mph.
Thanksgiving Day	Mostly sunny, with a high near 64. Breezy, with a south wind 11 to 16 mph becoming west northwest in the afternoon. Winds could gust as high as 22 mph.
Thursday Night	Mostly clear, with a low around 32. Breezy.
Friday	Mostly sunny, with a high near 39. Breezy.
Friday Night	Partly cloudy, with a low around 23.
Saturday	Mostly sunny, with a high near 40.
Saturday Night	Partly cloudy, with a low around 27.

NWS Des Moines, IA

Point Forecast: 3 Miles NNW Kelley IA
42°N 93.68°W
10:15 am CST Nov 20, 2012
3pm CST Nov 20, 2012-6pm CST Nov 26, 2012
[Forecast Valid:](#)
[Forecast Discussion](#)
[KML](#) [XML](#)

Click Map for Forecast [Disclaimer](#)



Requested Location Forecast Area
Lat/Lon: 42°N 93.68°W Elevation: 1010 ft

RADAR & SATELLITE IMAGES

Point and Click
Forecast





Watches and Warnings

Winter and Non-Precipitation Watch/Warning/Advisory Services

URGENT - WINTER WEATHER MESSAGE
 NATIONAL WEATHER SERVICE DES MOINES IA
 706 AM CST SAT FEB 4 2012

...MODERATE TO HEAVY SNOW EXPECTED TO EXPAND ACROSS CENTRAL AND SOUTHWEST IOWA TODAY...

...A POWERFUL WINTER STORM WILL AFFECT THE AREA TODAY AND BRING MODERATE TO HEAVY SNOWFALL TO THE REGION. A PERIOD OF THUNDER IS POSSIBLE THIS MORNING OVER THE SOUTHWEST. IF THE THUNDER SNOW OCCURS... SNOWFALL RATES WILL APPROACH 2 INCHES PER HOUR. THE SNOWFALL WILL GRADUALLY DIMINISH FROM NORTH TO SOUTH THIS AFTERNOON.

IAZ044>048-057>060-070>072-081-082-042115-
 /O.CON.KDMX.WS.W.0002.000000T0000Z-120205T1200Z/
 CRAWFORD-CARROLL-GREENE-BOONE-STORY-AUDUBON-GUTHRIE-DALLAS-POLK-
 CASS-ADAIR-MADISON-ADAMS-UNION-
 INCLUDING THE CITIES OF...DENISON...CARROLL...JEFFERSON...BOONE...
 AMES...AUDUBON...GUTHRIE CENTER...ADEL...DES MOINES...ATLANTIC...
 GREENFIELD...WINTERSSET...CORNING...CRESTON
 706 AM CST SAT FEB 4 2012

...WINTER STORM WARNING REMAINS IN EFFECT UNTIL 6 AM CST SUNDAY...

* SHORT TERM TRENDS...SNOW WILL CONTINUE TO EXPAND ACROSS THE AREA THIS MORNING. THE SNOW WILL BE HEAVY AT TIMES THIS THROUGH NOON TODAY WITH INTENSITIES DIMINISHING THROUGH THE AFTERNOON.

* STORM TOTAL SNOW...TOTAL SNOWFALL AMOUNTS FROM 4 TO 8 INCHES ARE FORECAST FOR THE AREA. THE HEAVIER AMOUNTS ARE EXPECTED OVER THE WESTERN PORTION OF THE WARNED AREA. LOCALLY HIGHER AMOUNTS MAY OCCUR.

* WINDS/VISIBILITY...NORTHEAST WINDS OF 20 TO 30 MPH WITH A FEW HIGHER GUSTS WILL CAUSE VISIBILITY RESTRICTIONS AND DRIFTING OF SNOW TODAY AND TONIGHT.

* IMPACTS...HEAVY SNOW WILL MAKE TRAVEL DANGEROUS DURING THE PERIOD. THE FALLING SNOW...COMBINED WITH STRONG WINDS... WILL LEAD TO REDUCED VISIBILITIES. UNTREATED SURFACES WILL BECOME ICY AS THE SNOW FREEZES TO THE PAVEMENT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WINTER STORM WARNING FOR HEAVY SNOW MEANS SEVERE WINTER WEATHER CONDITIONS ARE EXPECTED OR OCCURRING. SIGNIFICANT AMOUNTS OF SNOW ARE FORECAST THAT WILL MAKE TRAVEL DANGEROUS. ONLY TRAVEL IN AN EMERGENCY. IF YOU MUST TRAVEL...KEEP AN EXTRA FLASHLIGHT...

Headline

Overview Section

Each segment has a listing of counties and cities – best viewed graphically

Short Term Trends

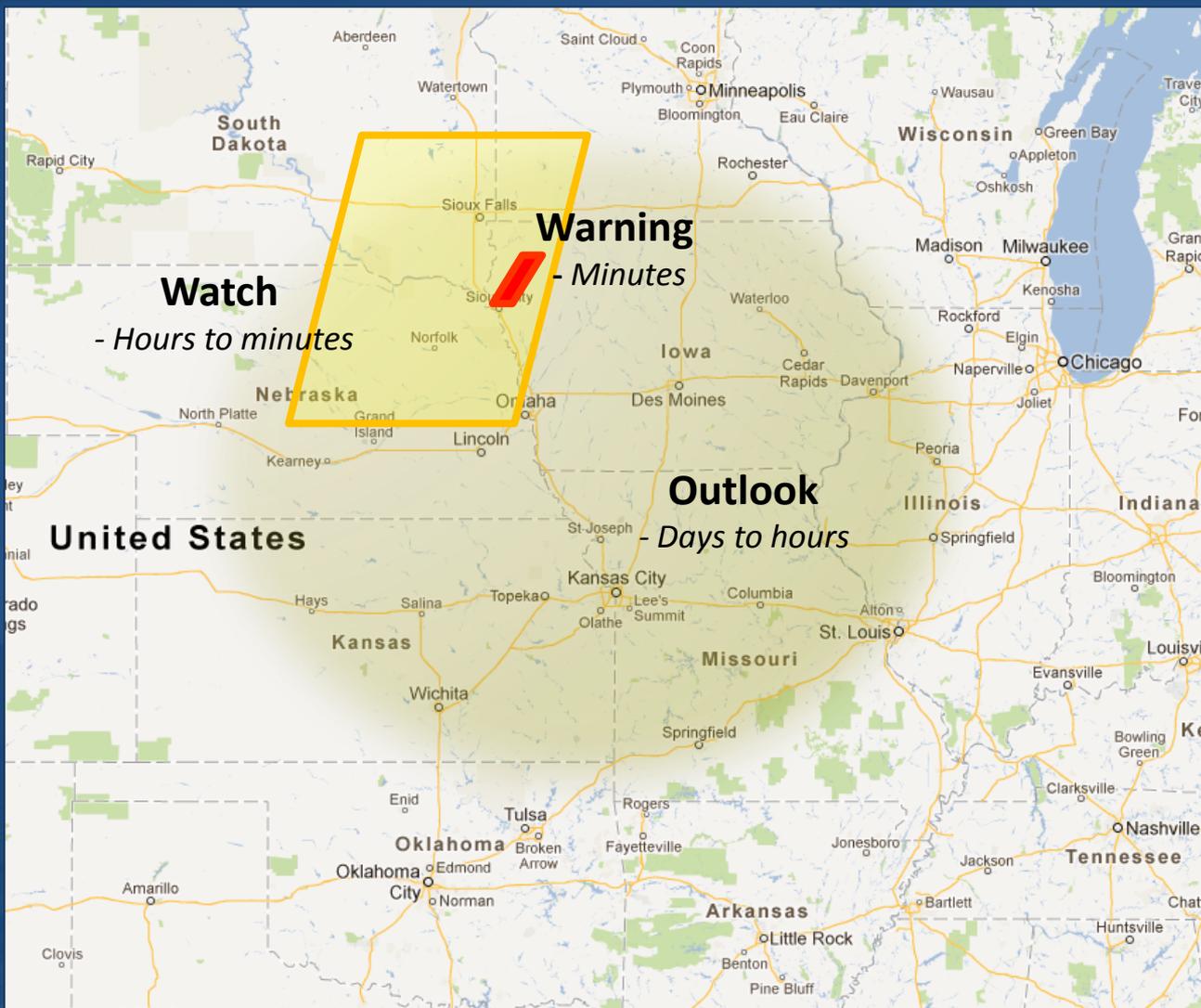
Storm Information

Impacts and Call to Actions





Warning Services Timeline





Severe Weather Warning Text

Warning text describes impacts and uses “tags” to make important information easier to find

THE NATIONAL WEATHER SERVICE IN SPRINGFIELD HAS ISSUED A
 * TORNADO WARNING FOR...
 NORTHWESTERN NEWTON COUNTY IN SOUTHWEST MISSOURI...
 SOUTHEASTERN CHEROKEE COUNTY IN SOUTHEAST KANSAS...
 SOUTHWESTERN JASPER COUNTY IN SOUTHWEST MISSOURI...
 THIS INCLUDES THE CITY OF JOPLIN...
 * UNTIL 600 PM CDT.

* AT 514 PM CDT...A TORNADO EMERGENCY FOR THE CITY OF JOPLIN.
 A CONFIRMED LARGE AND DESTRUCTIVE TORNADO WAS LOCATED NEAR
 BAXTER SPRINGS MOVING NORTHEAST AT 40 MPH.

THIS IS A PARTICULARLY DANGEROUS SITUATION.
 HAZARD...DEADLY TORNADO AND BASEBALL SIZE HAIL
 SOURCE...SPOTTERS AND LAW ENFORCEMENT CONFIRMED TORNADO.
 SIGNIFICANT DAMAGE TO HOMES REPORTED IN THE OAKS
 SUBDIVISION.

IMPACT...LIFE THREATENING SITUATION. EXTENSIVE DAMAGE TO HOMES
 AND BUILDINGS...UPROOTED TREES AND DEBRIS WILL
 RESTRICT ACCESS INTO MANY AREAS.

* OTHER LOCATIONS IN THE WARNING...JOPLIN.
 PRECAUTIONARY/PREPAREDNESS ACTIONS...
 IF YOU ARE IN OR NEAR JOPLIN TAKE COVER IMMEDIATELY!
 &&
 LAT...LON 3716 9479 3707 9426 3697 9430 3701 9479
 TIME...MOT...LOC 2216Z 247DEG 36KT 3708 9470

TORNADO...OBSERVED
 TORNADO DAMAGE THREAT...CATASTROPHIC
 HAIL...2.75IN

Tornado Warning Tag

TORNADO...RADAR INDICATED	Evidence on radar is supportive of a tornado, but there is no ground confirmation.
TORNADO...OBSERVED	Tornado is confirmed by spotters, law enforcement, etc.

Tornado Warning Damage Threat Tag

No Tag	Used most of the time when tornado damage is possible.
TORNADO DAMAGE THREAT...CONSIDERABLE	Used rarely when there is credible evidence that a tornado is capable of producing considerable damage.
TORNADO DAMAGE THREAT...CATASTROPHIC	Used exceedingly rarely when a severe threat to human life and catastrophic damage from a tornado is occurring.

Tornado Tag In Severe Thunderstorm Warnings

TORNADO...POSSIBLE	A severe thunderstorm has some potential to produce a tornado
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Tornado Warning Text

Tornado Warnings = Tornado (also implies severe wind/hail possible)

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THE NATIONAL WEATHER SERVICE IN LINCOLN HAS ISSUED A  
  
* TORNADO WARNING FOR...  
  SOUTH CENTRAL PEORIA COUNTY IN CENTRAL ILLINOIS...  
  NORTHERN TAZEWELL COUNTY IN CENTRAL ILLINOIS...  
  WESTERN WOODFORD COUNTY IN CENTRAL ILLINOIS...  
  
* UNTIL 1115 AM CST  
  
* AT 1049 AM CST...A SEVERE THUNDERSTORM CAPABLE OF PRODUCING A  
  TORNADO WAS LOCATED NEAR PEKIN...AND MOVING NORTHEAST AT 55 MPH.  
  
  HAZARD...TORNADO AND QUARTER SIZE HAIL.  
  
  SOURCE...RADAR INDICATED ROTATION.  
  
  IMPACT...MOBILE HOMES WILL BE DAMAGED OR DESTROYED. DAMAGE TO  
    ROOFS...WINDOWS AND VEHICLES WILL OCCUR. FLYING DEBRIS  
    WILL BE DEADLY TO PEOPLE AND ANIMALS. TREE DAMAGE IS  
    LIKELY.  
  
* THIS DANGEROUS STORM WILL BE NEAR...  
  MARQUETTE HEIGHTS AND CREVE COEUR AROUND 1055 AM CST.  
  EAST PEORIA AND MORTON AROUND 1100 AM CST.  
  WASHINGTON AND GERMANTOWN HILLS AROUND 1105 AM CST.  
  DEER CREEK AROUND 1110 AM CST.  
  EUREKA AND METAMORA AROUND 1115 AM CST.  
  
TAKE COVER NOW. MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A  
STURDY BUILDING. AVOID WINDOWS. IF IN A MOBILE HOME...A VEHICLE OR  
OUTDOORS...MOVE TO THE CLOSEST SUBSTANTIAL SHELTER AND PROTECT  
YOURSELF FROM FLYING DEBRIS.  
  
&&  
  
LAT...LON 4092 8933 4066 8905 4049 8970 4056 8978  
TIME...MOT...LOC 1650Z 235DEG 50KT 4056 8966  
  
TORNADO...RADAR INDICATED  
HAIL...1.00IN
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Counties – best viewed graphically

Basis, location and movement

Hazard, source and impacts

Locations (city list or pathcast)

Call to Actions

Tags





Severe T-Storm Warning Text

Severe Thunderstorm Warnings – 1 inch hail and/or 58 mph winds

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THE NATIONAL WEATHER SERVICE IN DES MOINES HAS ISSUED A

* SEVERE THUNDERSTORM WARNING FOR...
  DALLAS COUNTY IN CENTRAL IOWA...
  NORTHERN MADISON COUNTY IN SOUTH CENTRAL IOWA...

* UNTIL 345 PM CDT

* AT 252 PM CDT...A SEVERE THUNDERSTORM WAS LOCATED 6 MILES NORTH OF
  STUART...AND MOVING NORTHEAST AT 40 MPH.

  HAZARD...QUARTER SIZE HAIL AND 60 MPH WIND GUSTS.

  SOURCE...RADAR INDICATED.

  IMPACT...HAIL DAMAGE TO VEHICLES IS EXPECTED. EXPECT WIND DAMAGE TO
  ROOFS...SIDING AND TREES.

* LOCATIONS IMPACTED INCLUDE...
  EARLHAM...DE SOTO...ADEL...DALLAS CENTER...WAUKEE...WOODWARD...
  DEXTER...LINDEN...REDFIELD...VAN METER...MINBURN...BOUTON AND
  GRANGER.

THIS INCLUDES INTERSTATE 80 BETWEEN MILE MARKERS 97 AND 121.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A
BUILDING.

LARGE HAIL...DAMAGING WINDS AND CONTINUOUS CLOUD TO GROUND LIGHTNING
IS OCCURRING WITH THIS STORM. MOVE INDOORS IMMEDIATELY. LIGHTNING
KILLS. REMEMBER...IF YOU CAN HEAR THUNDER...YOU ARE CLOSE ENOUGH TO
BE STRUCK BY LIGHTNING.

&&

LAT...LON 4160 9424 4160 9428 4175 9428 4187 9400
  4186 9382 4160 9381 4160 9380 4147 9379
  4140 9424
TIME...MOT...LOC 1956Z 241DEG 33KT 4160 9430

HAIL...1.00IN
WIND...60MPH

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Counties – best viewed graphically

Basis, location and movement

Hazard, source and impacts

Impacted locations (city list or pathcast)

Call to Actions

Max wind/hail tag





Severe Wx Statement Text

Follow-up Severe Weather Statement = Additional detail to a warning

...A TORNADO WARNING REMAINS IN EFFECT FOR CENTRAL WOODFORD AND NORTH CENTRAL TAZEWELL COUNTIES UNTIL 1115 AM CST...

AT 1103 AM CST...A CONFIRMED LARGE AND EXTREMELY DANGEROUS TORNADO WAS LOCATED NEAR WASHINGTON...AND MOVING NORTHEAST AT 55 MPH.

THIS IS A PARTICULARLY DANGEROUS SITUATION.

HAZARD...DAMAGING TORNADO.

SOURCE...EMERGENCY MANAGEMENT CONFIRMED TORNADO.

IMPACT...YOU ARE IN A LIFE THREATENING SITUATION. MOBILE HOMES WILL BE DESTROYED. CONSIDERABLE DAMAGE TO HOMES...BUSINESSES AND VEHICLES IS LIKELY AND COMPLETE DESTRUCTION POSSIBLE. FLYING DEBRIS WILL BE DEADLY TO PEOPLE AND ANIMALS. EXPECT TREES TO BE UPROOTED OR SNAPPED.

THE TORNADO WILL AFFECT MAINLY RURAL AREAS OF CENTRAL WOODFORD AND NORTH CENTRAL TAZEWELL COUNTIES...INCLUDING THE FOLLOWING LOCATIONS...EUREKA.

INTERSTATE 74 BETWEEN MILE MARKERS 100 AND 103.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

TO REPEAT...A LARGE...EXTREMELY DANGEROUS AND POTENTIALLY DEADLY TORNADO IS ON THE GROUND. TO PROTECT YOUR LIFE...TAKE COVER NOW. MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A STURDY BUILDING. AVOID WINDOWS. IF IN A MOBILE HOME...A VEHICLE OR OUTDOORS...MOVE TO THE CLOSEST SUBSTANTIAL SHELTER AND PROTECT YOURSELF FROM FLYING DEBRIS.

&&

LAT...LON 4060 8947 4067 8954 4083 8923 4074 8913
TIME...MOT...LOC 1706Z 235DEG 50KT 4070 8943

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE
HAIL...0.00IN

Basis, location and movement

Hazard, source and impacts

Locations (city list or pathcast)

Call to Actions

Tags





Flash Flood Warning Text

Flash Flood Warnings – Imminent or occurring

BULLETIN - EAS ACTIVATION REQUESTED
FLASH FLOOD WARNING
NATIONAL WEATHER SERVICE DES MOINES IA
923 PM CDT TUE AUG 10 2010

THE NATIONAL WEATHER SERVICE IN DES MOINES HAS ISSUED A

* FLASH FLOOD WARNING FOR...
BLACK HAWK COUNTY IN NORTHEAST IOWA...
BREMER COUNTY IN NORTHEAST IOWA...
BUTLER COUNTY IN NORTH CENTRAL IOWA...
GRUNDY COUNTY IN CENTRAL IOWA...
TAMA COUNTY IN CENTRAL IOWA...

* UNTIL 330 AM CDT WEDNESDAY

* AT 922 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED SLOW MOVING THUNDERSTORMS WITH VERY HEAVY RAINFALL ACROSS THE WARNED AREA. RAINFALL RATES OF 1 TO 2 INCHES PER HOUR CAN BE EXPECTED WITHIN THE WARNED AREA.

* RUNOFF FROM THIS EXCESSIVE RAINFALL WILL CAUSE FLASH FLOODING TO OCCUR. SOME LOCATIONS THAT WILL EXPERIENCE FLOODING INCLUDE...
WATERLOO...ALLISON...APLINGTON...CEDAR FALLS...CLARKSVILLE...
CONRAD...DENVER...DYSART...EVANSDALE...GREENE...GRUNDY CENTER...
HUDSON...LA PORTE CITY...PARKERSBURG...REINBECK...SHELL ROCK...
SUMNER...TAMA...TOLEDO...TRIPOLI AND WAVERLY.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

ADDITIONAL RAINFALL AMOUNTS OF UP TO 3 INCHES ARE POSSIBLE IN THE WARNED AREA.

EXCESSIVE RUNOFF FROM HEAVY RAINFALL WILL CAUSE FLOODING OF SMALL CREEKS AND STREAMS...HIGHWAYS AND UNDERPASSES. ADDITIONALLY... COUNTRY ROADS AND FARMLANDS ALONG THE BANKS OF CREEKS...STREAMS AND OTHER LOW LYING AREAS ARE SUBJECT TO FLOODING.

Counties – best viewed graphically

Basis, location and movement

Impacted locations (city list and/or streams)

Call to Actions





Warning Text

“Emergencies”

- Tornado Emergency – A destructive confirmed tornado which will likely move into a populated area resulting in serious property damage and a high potential for loss of life! **Catastrophic tag!**
- Flash Flood – A serious flash flood which will likely cause severe damage and a high potential for loss of life!





Severe Weather 101

What is a Tornado?

- A violently rotating column of air attached to a cloud base and in contact with the ground.
- Exhibit rapid rotation and are most often laminar or smooth in appearance
- Can have visible and invisible funnels
- Usually vertically oriented



Courtesy of Jeff & Amy Ruhland





Severe Weather 101



Tornado Types and Terms

- Wedge – Large tornado
- Invisible – A tornado without a condensation funnel
- Funnel – Rotating column of air NOT on the ground
- EF Rating – Enhanced Fujita rating which indicates a tornadoes strength

Funnel Cloud



Courtesy of Jeff & Amy Ruhland

Wedge Tornado



Courtesy of Rod Donavon

Invisible Tornado



Rain-Wrapped Tornado





Severe Weather 101

Tornado Lookalikes

- Gustnadoes
- Scud Clouds
- Shelf Clouds
- Dust Devils
- Rain Shafts
- Smoke Plumes
- Towers
- Grain Elevators



Key to Know

Rotation? Debris?





Severe Weather 101

Severe Straight-Line Wind Storms

- Large area
- Damaging straight-line winds (over 100 mph!)
- Tornado-like damage!
- Signature cloud – Shelf cloud
- Siren considerations?



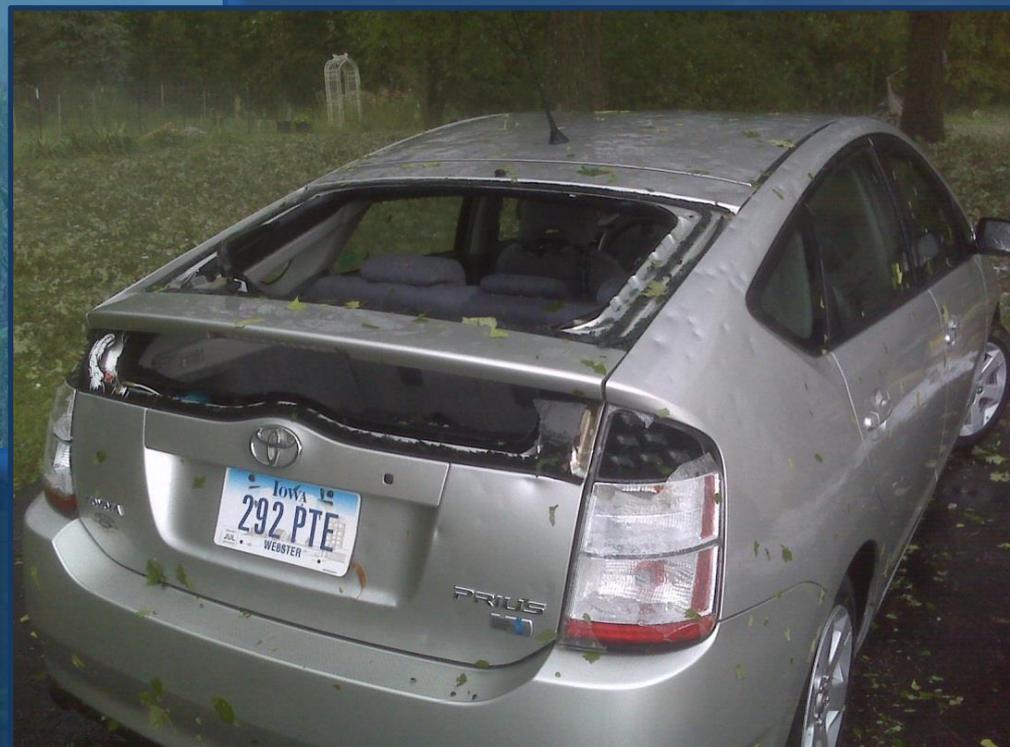
**East Iowa Derecho
July 11, 2011**



Severe Weather 101



Northern Iowa, August 9, 2009



Severe Hail Examples





Severe Weather 101



Flash Flooding

- Difference between river and flash flooding
- Life threatening – especially at night
- Impact information often lacking in real-time



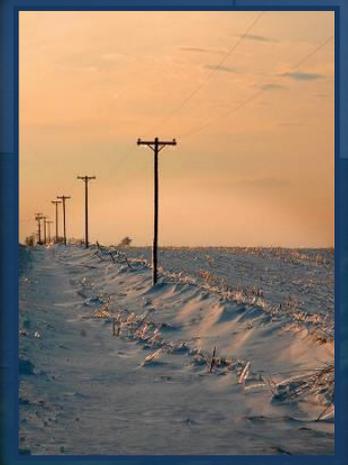
Photos Courtesy of Des Moines Register / KCCI

Mud Creek, August 2010





Severe Weather 101



Winter Weather

- Snow / Ice amounts
- Hazardous Travel Conditions
- Winter weather Impacts?

Photos Courtesy of Alliant Energy





Severe Weather 101



Interested in Learning More?



- National Weather Service Storm Spotter Training
- Late February through April each spring
- Two hour training in the evening
- Check our website at weather.gov/dmx for the spotter training schedule
- Also available via webinar during the training season!





Why Does the NWS Call?

It's all about information – You have it and we need it!

Remember our mission? The protection of lives and property. We can't do it alone. We need you, the local experts!





Why Does the NWS Call?



- Storm spotter information
 - Real-time spotter reports
 - Storm damage, injuries and fatalities
 - Assist with local warning decisions
- Coordination
 - “Heads-up” prior to storm
 - Authenticate non-weather emergency messages



When to Call the NWS



- When you have weather-related reports
 - Spotter or public reports? Road closures? 911 outages?
- For specific needs (weather, hazmat support, other?)
- If you need clarification on a forecast or warning
- To schedule a visit/tour of the National Weather Service
- To let us know how an event went (feedback)



What Should be Reported?



Tornadoes

Funnel Clouds

Rotating Wall Clouds

Hail

Wind (≥ 50 mph)

Flooding

Heavy Rain (≥ 1 per hr)

Fatalities

Injuries

Damage





What Makes a Good Report?

- Who?** Spotter or public
- What?** What are they seeing?
Use proper terms
- Where?** Reference the nearest city, street, or lat./lon.
- When?** Time of event (if in the past)
- Damage?** Be descriptive

Be as specific as possible!

Include all of the above information in your reports regardless of the reporting method





When to Contact the NWS



It is simply not possible for you to “bug” us

More calls = High confidence

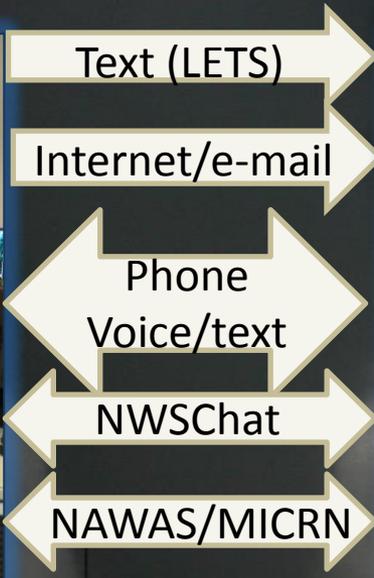
High confidence = Accurate and Timely Warnings

Remember that we are here to help you!





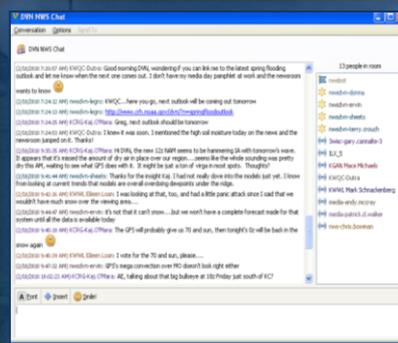
Optimizing Communication



Internet



Phone



NWSChat



MICRN



NAWAS





Telephone

Optimizing Communications

Spotter hotline number:
1-800-SKYWARN
(1-800-759-9276)

We also receive spotter
reports via text
messaging at:
(515) 240-5515



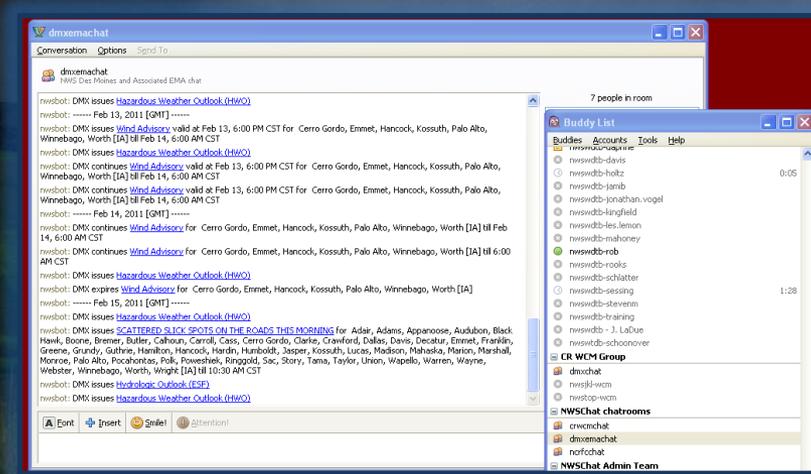


NWS Chat

Optimizing Communications

- Private, secure chat and instant messaging service between NWS, dispatch offices and Emergency Managers.
- Ability to quickly share and view information from NWS and nearby counties.
- Includes automated weather feed which is the fastest way to receive NWS warnings.
- Feed includes ability to graphically display radar info and exact warning areas.
- Great for siren activations.

For additional information
contact Brad Small at:
bradley.small@noaa.gov

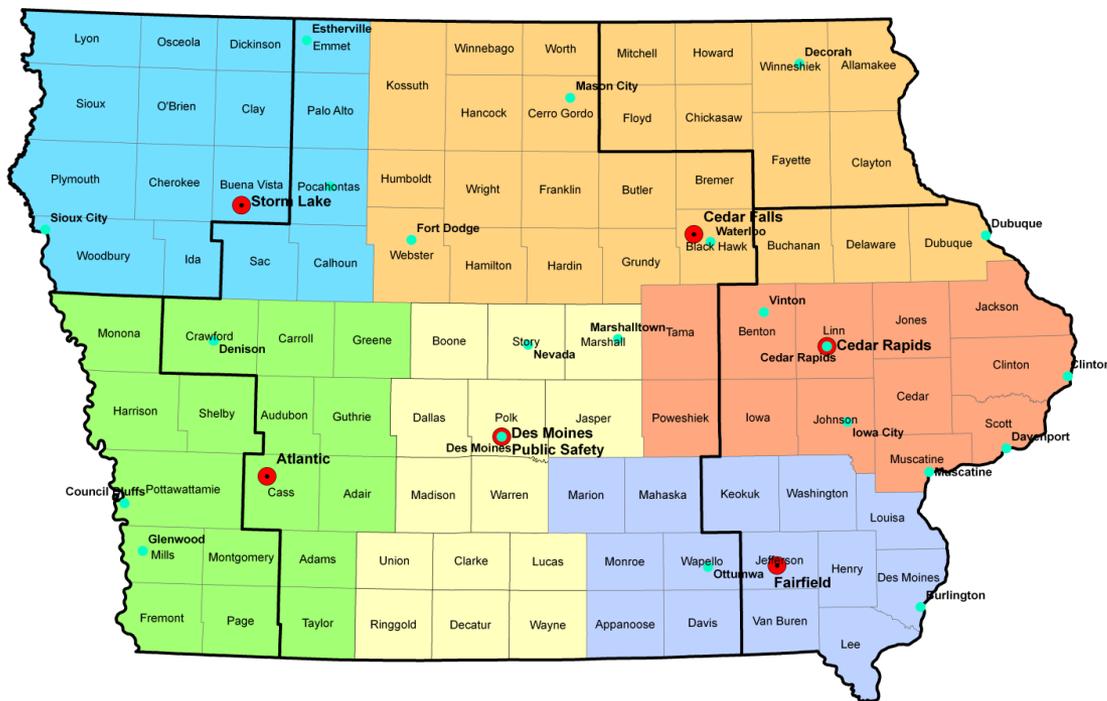




NAWAS

Optimizing Communications

NAWAS/IOWAS



Iowa State Patrol
Warning Point areas
and IOWAS locations

Red - ISP Warning
Points

Blue - Other IOWAS
locations

*All NWS offices have
a line*





MICRN

Optimizing Communications



MICRN – Metro Incident Command Radio Network



Eight central
Iowa counties
with over 40
agencies on the
network





Email

Optimizing Communications

dmx.spotterreport@noaa.gov

This is a spotter reporting e-mail account. NWSChat is a preferred method for dispatchers to use, but the email account is an option

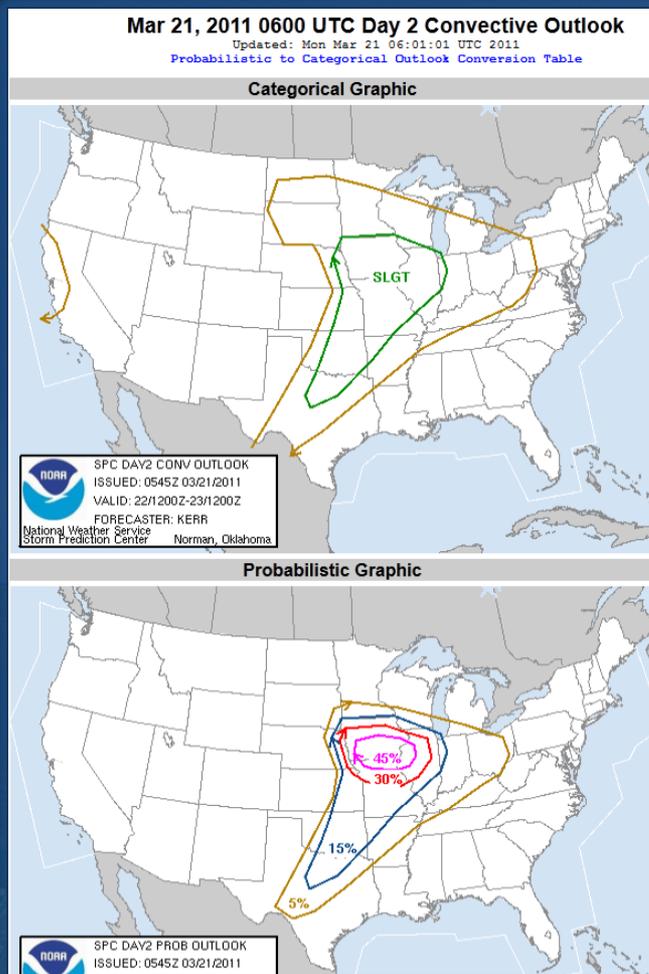




Case Study – Tornado Event

Madison County EF2 Tornado Event – March 22, 2011

Outlook Phase: 12-72 hours in advance



- NWS Products – Storm Prediction Center (SPC) Outlooks, NWS Des Moines Hazardous Weather Outlooks
- Enhanced NWS Decision Support Services - Severe weather highlighted in Weather Story
- Verify NWS communications such as NWSChat account

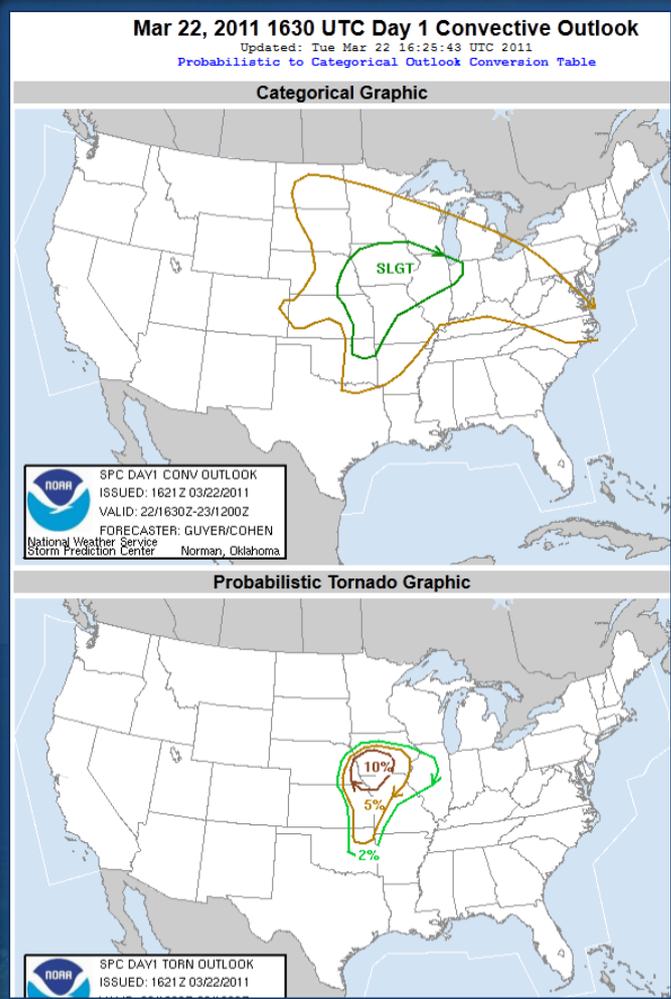




Case Study – Tornado Event

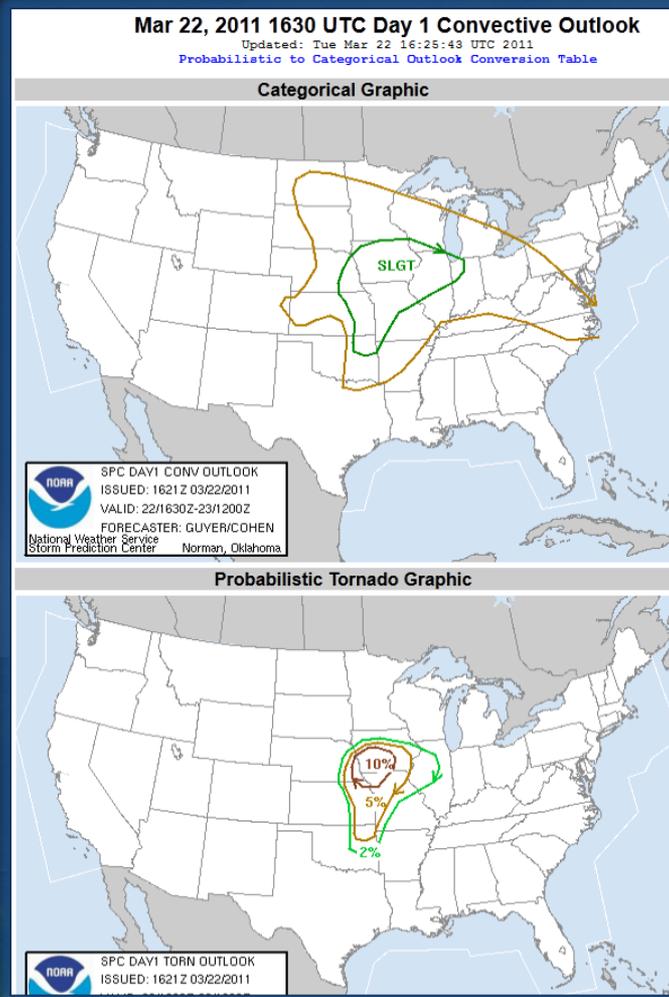
Outlook Phase: 6-12 hours in advance

- NWS Products – SPC Convective Outlooks, NWS Des Moines Hazardous Weather Outlooks
- Enhanced NWS Decision Support Services - Headlined on our website, risk sent through Social Media, emergency manager webinar held, multi-media web briefing on NWS website





Case Study – Tornado Event



Outlook Phase: 6-12 hours in advance

Possible dispatcher actions
(with respect to the NWS)

- Notification of spotter groups?
- Watch NWS web briefing?
- Other coordination or actions?





Case Study – Tornado Event

Watch Phase: 0-6 hours in advance



NWS Products – SPC Watches (is it a Potentially Dangerous Situation (PDS) watch?)

Enhanced NWS Decision Support Services – “Occasional” NWS calls to dispatch offices to coordinate prior to warning, risk highlighted on website and possibly through Social Media





Case Study – Tornado Event

Watch Phase: 0-6 hours in advance

Possible dispatcher actions

(with respect to the NWS) –

- Notification of spotter groups?
- Watch dissemination?
- Coordinate with emergency manager or spotter net controller (amateur radio?)
- Contact NWS with questions?
Phone, Chat, MICRN, etc.

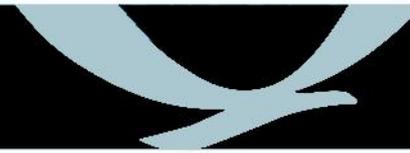


NWS Des Moines communications desk, March 22, 2011

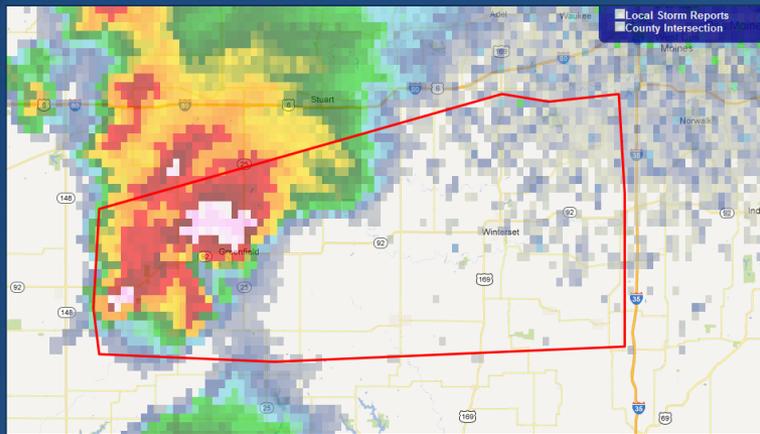




Case Study – Tornado Event



Warning Phase: 0-1 hour in advance



Courtesy of Iowa Environmental Mesonet

NWS Tornado Warning issued at 544 PM CDT, March 22, 2011

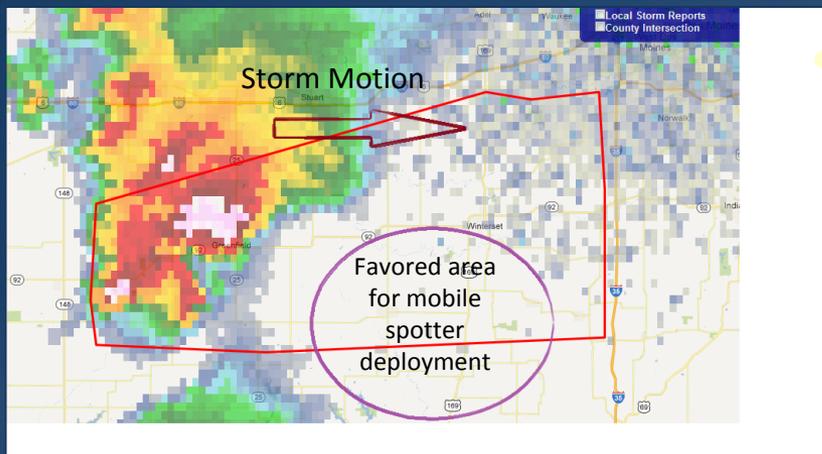
- NWS Products – NWS warnings, Local Storm Reports (LSR), watch updates
- Enhanced NWS Decision Support Services – “Occasional” NWS calls to dispatch offices to coordinate during warnings, dissemination of warning products, risk highlighted on website and possibly through Social Media. High impact event? Additional service!





Case Study – Tornado Event

Warning Phase: 0-1 hour in advance



Courtesy of Iowa Environmental Mesonet

NWS Tornado Warning issued at 444 PM
March 22, 2011

Possible dispatcher actions

(with respect to the NWS) -

- Relaying spotter reports to NWS – *using fastest communication system?*
- Local warning dissemination – *siren activations?*
- Coordinate with emergency manager or spotter net controller (amateur radio?) – *are they in charge of relaying reports to NWS?*
- Contact NWS with questions?
Phone, Chat, MICRN, etc.





Case Study – Tornado Event



Tornado in southwest Iowa, March 22, 2011

Brad Nelson

Warning Phase: Tornado in progress

- NWS Products – NWS Severe Weather Statements (SVS), LSR's, new warnings?, “**emergency**” wording/tag in warning/statement?
- Enhanced NWS Decision Support Services – “Occasional” NWS calls to dispatch offices to coordinate during warnings, dissemination of warning products, risk highlighted on website and possibly through Social Media



NWS Des Moines Warning Team

March 22, 2011

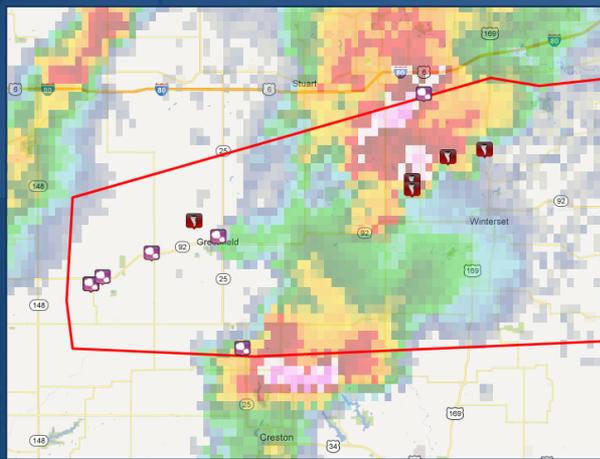




Case Study – Tornado Event



Tornado in southwest Iowa, March 22, 2011
Brad Nelson



Radar and warning display valid at 614 PM CDT. Reported hail and tornado locations provided

Warning Phase: Tornado in progress

Possible dispatcher actions

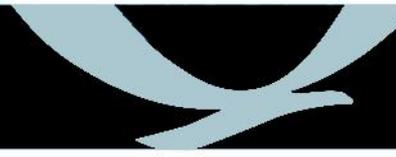
(with respect to the NWS) -

- Relaying spotter reports to NWS – *using fastest communication system?*
- Local warning dissemination – *siren activations?*
- Coordinate with emergency manager or spotter net controller (amateur radio?) – *are they in charge of relaying reports to NWS?*
- Contact NWS with questions? *Phone, Chat, MICRN, etc.*





Case Study – Tornado Event



Post Event



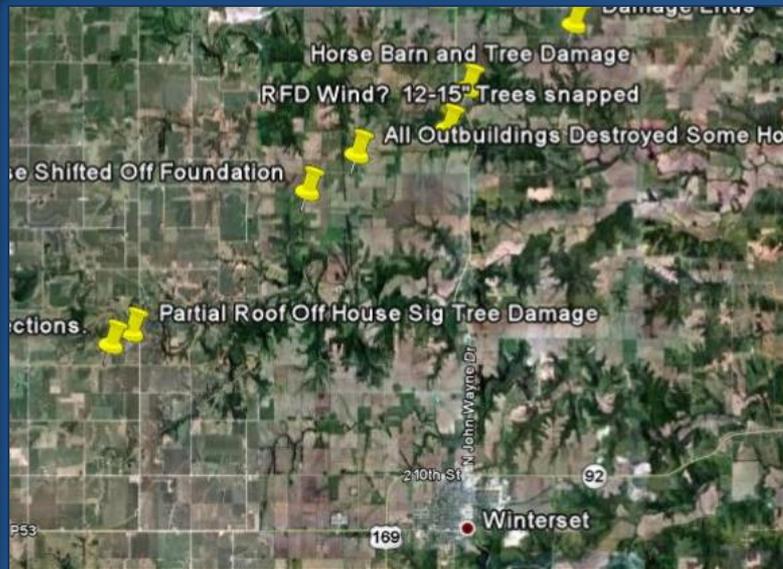
NWS Des Moines Storm Surveyor providing a media interview in the field

NWS Products – Watch/Warnings cancelled or expired, LSR's issued Enhanced NWS Decision Support Services – Possible call to the county to finalize initial damage estimates, coordination with the county concerning damage survey activities, conducting survey in coordination with the emergency manager the following day(s). Storm Survey results are released to the media and placed on the NWS website.





Case Study – Tornado Event



Tornado damage locations



Tornado damage

Storm Survey results for Madison County March 22, 2011

- EF2 Tornado – Peak wind of 120 mph
- Length – 11 miles
- No injuries or deaths!





Thank You!!



National Weather Service
Des Moines, IA

