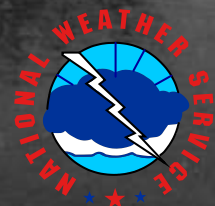


WFO La Crosse Decision Support Services



February 10, 2010

WFO Memphis Third Annual All Hazards Decision Support Workshop

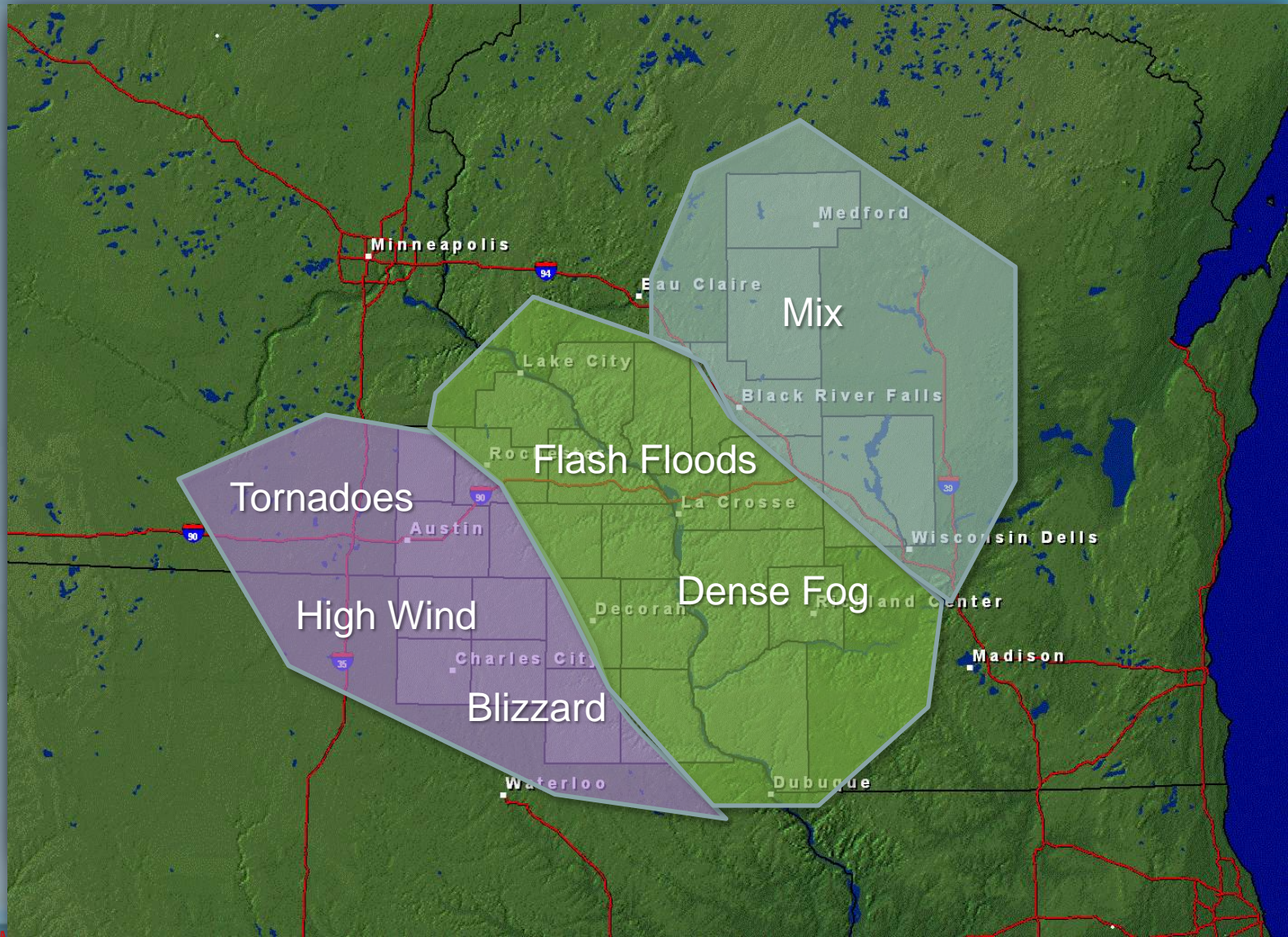


WFO La Crosse

- Spin-up WFO (1995-1996)
 - Closed WSOs: Rochester, Madison, Waterloo
- 28 counties / 3 states
- 19,630 sq.mi (24th in CR)
- Pop: 837,467 (21st in CR)
- 23 staff members
 - 9 forecasters
- Wide variety of EM involvement

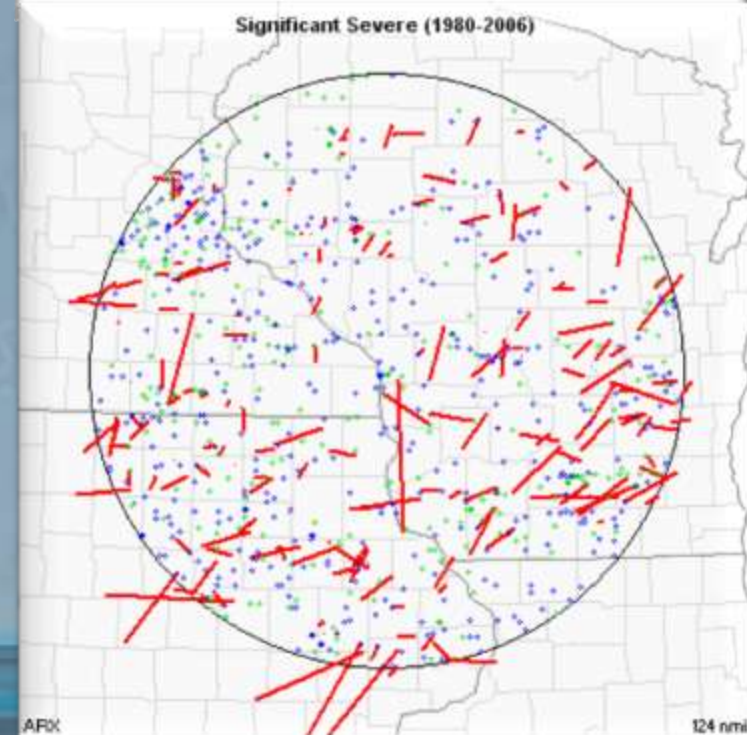
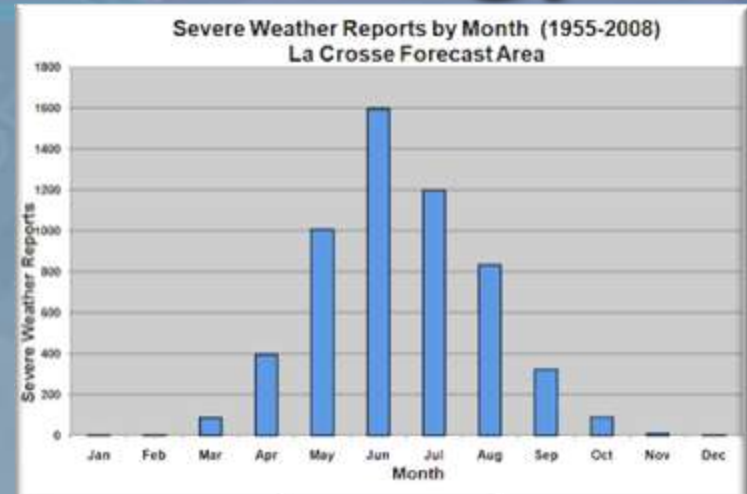


County Warning / Service Area



Severe Weather Climatology

- Avg. 175 warnings per year
 - 19 Tornado
 - 138 Severe Thunderstorm
 - 18 Flash Flood
- Avg. 260+ events per year
 - 100 wind
 - 126 hail
 - 8 tornadoes
 - 25 flash floods
 - 5-6 winter storms



Local Decision Support Projects

- Hazardous Weather Outlook (HWO) Dissemination
- Spotter Activation Notification System (SANS)
- Emergency Manager Notify (EMNotify)
- ARX Staff
 - Matt Davis (ITO) – Programmer, IT support
 - Randy Breeser (DAPM) - Programmer
 - Todd Rieck (JF) – web master



HWO Dissemination

- GOAL: Ensure EMs / spotters see outlooks; increase dissemination
- Automatically e-mailed to contacts (1255)
- Contacts collected at spotter training sessions



Dissemination Specifics

- Triggered in AWIPS to send to the LDM system on LDAD server.
- LDM transfers them to the web server.
- Custom PHP script runs; sends file from special directory.
- Process adds header / subject line / footer.
 - Addresses read from a separate file
- Last process securely transmits to CR Email relay.



HWO Dissemination

Pros:

- Automatic
- Mass dissemination (more exposure)
- People love it

Cons:

- Maintenance hog
- Email sent for all updates / corrections

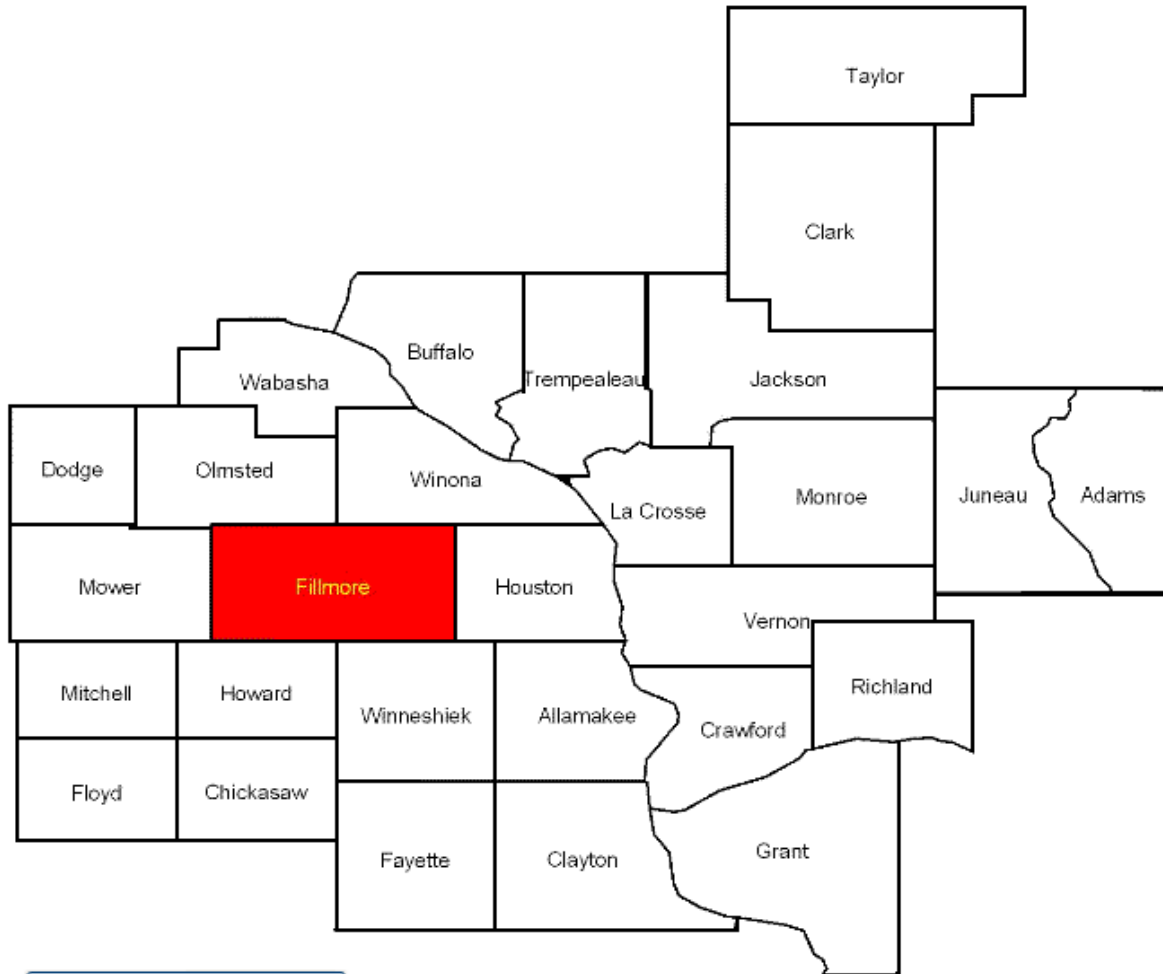


Spotter Activation Notification System (SANS)

- GOAL: Provide guidance to spotters; increase spotter involvement and reports
- Manual interface used at WFO (communicator)
- Activations and Deactivations
- Disseminates...
 - Email or Text Message (SMS)
 - Brief message over NOAA Weather Radio
 - Updates public viewable website



Spotter Activation Notification System (SANS)



Submit Configuration

Reload/Reset Configuration



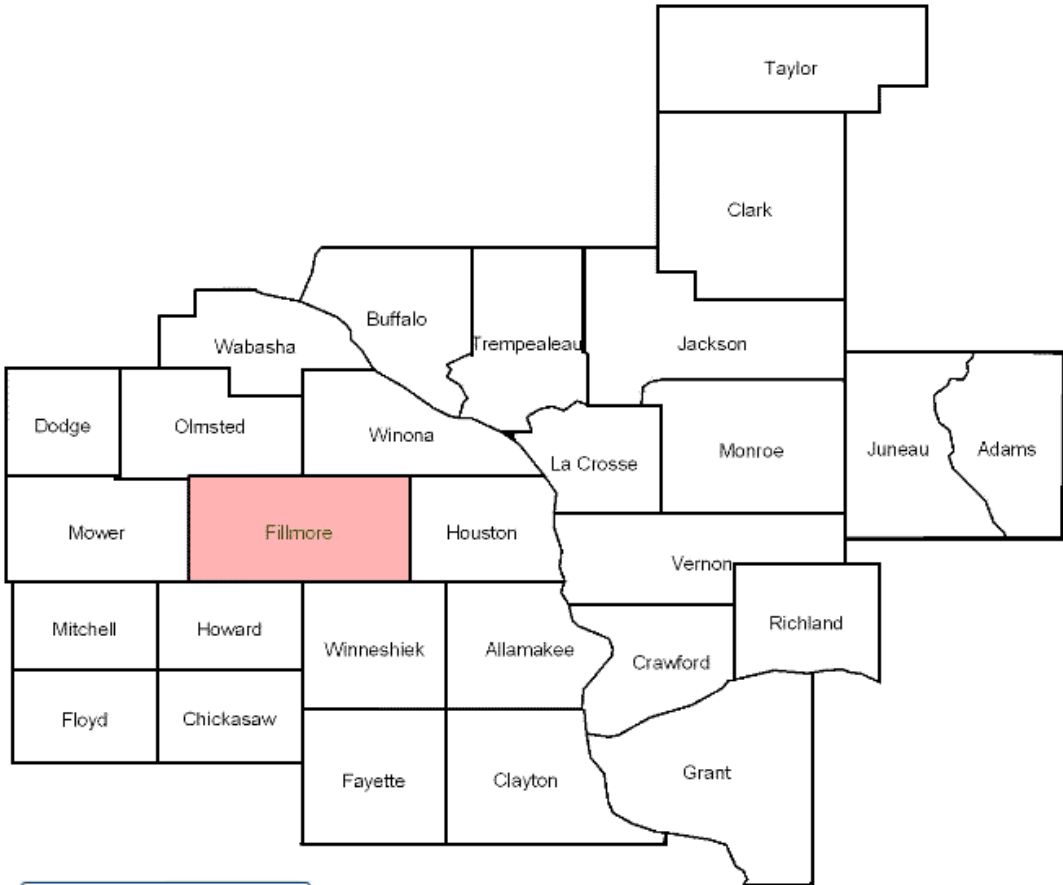
Spotter Activation Notification System (SANS)

County Last Activated Last Deactivated

Activate : Fillmore

Spotter activation recommended

Transmit Spotter Message



Submit Configuration

Reload/Reset Configuration

The image shows a software interface for the Spotter Activation Notification System (SANS). It features a map of Wisconsin counties. The county of Fillmore is highlighted in red, indicating it is the selected county for activation. The interface includes a legend at the top left with categories: County (blue), Last Activated (red), and Last Deactivated (green). On the right side, there is a dropdown menu showing 'Activate : Fillmore' and a text box containing the message 'Spotter activation recommended'. Below this is a 'Transmit Spotter Message' button. At the bottom left, there are two buttons: 'Submit Configuration' and 'Reload/Reset Configuration'.




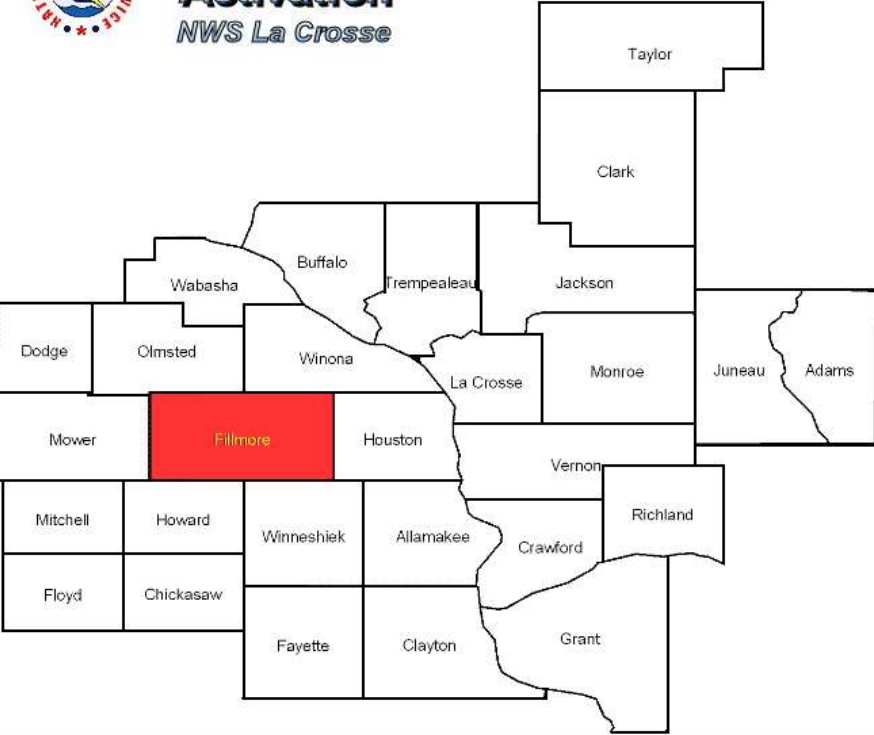
Spotter Activation Notification System (SANS)

NWS La Crosse Spotter Activation Display Page - Windows Internet Explorer

http://www.crh.noaa.gov/arl/activation/

File Edit View Favorites Tools Help

June 17, 2009 Aurora Nebr... National Weather Service T... SPotter Activation NWS La Crosse Spotter ... http://www.weathergraphi...

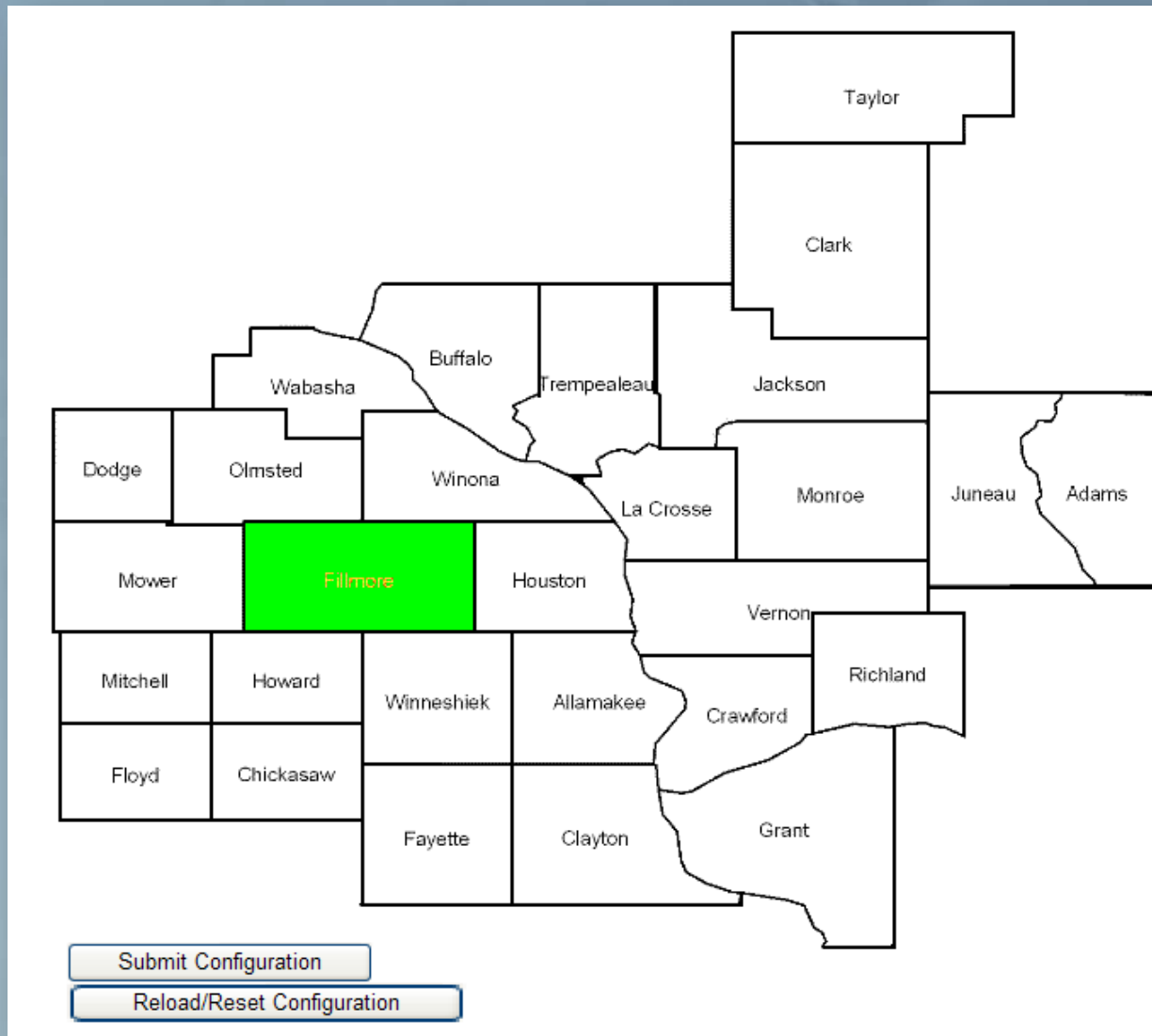
County	Status	Last Activation Time
Adams	Inactive	06/19/2009 15:08
Allamakee	Inactive	06/18/2009 21:07
Buffalo	Inactive	04/24/2009 17:10
Chickasaw	Inactive	06/17/2009 19:38
Clark	Inactive	04/24/2009 18:58
Clayton	Inactive	08/05/2008 13:23
Crawford	Inactive	06/18/2009 21:37
Dodge	Inactive	06/17/2009 18:40
Fayette	Inactive	06/23/2009 16:29
Fillmore	Active	06/24/2009 11:09
Floyd	Inactive	06/23/2009 15:07
Grant	Inactive	06/19/2009 08:16
Houston	Inactive	
Howard	Inactive	06/17/2009 19:38
Jackson	Inactive	04/24/2009 19:16
Juneau	Inactive	06/18/2009 22:03
La Crosse	Inactive	
Mitchell	Inactive	06/23/2009 15:07
Monroe	Inactive	06/18/2009 22:03
Mower	Inactive	06/17/2009 18:40
Olmsted	Inactive	04/24/2009 17:10
Richland	Inactive	06/18/2009 22:04
Taylor	Inactive	04/24/2009 17:45
Trempealeau	Inactive	04/24/2009 17:28
Vernon	Inactive	06/18/2009 21:37
Wabasha	Inactive	04/24/2009 17:10
Winneshiek	Inactive	06/18/2009 21:07
Winona	Inactive	

Done Local intranet 100%

weather.gov/lacrosse/activation



Spotter Activation Notification System (SANS)



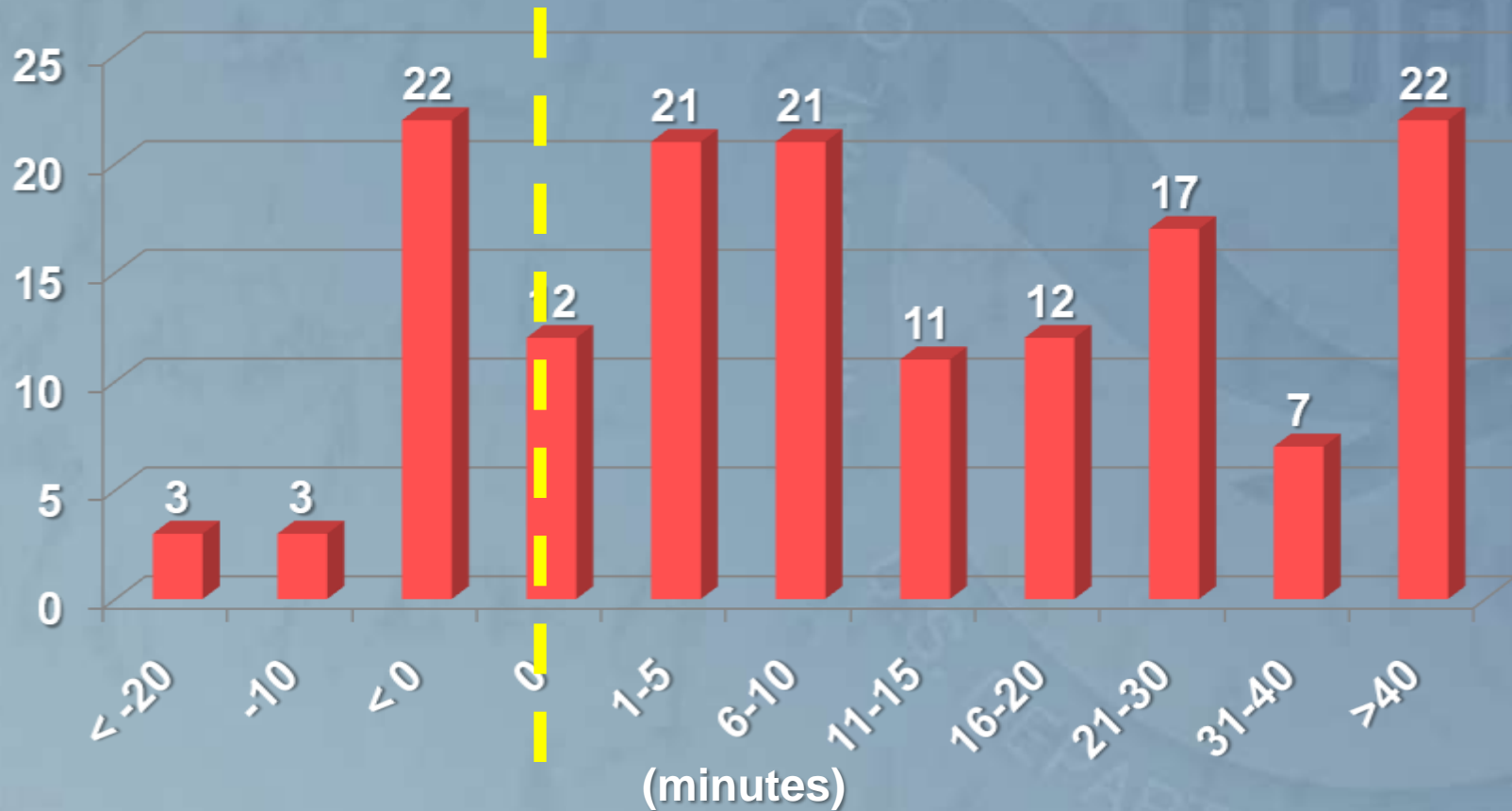
Spotter Activation Notification System (SANS)

- Suggested activation criteria:
 - Any tornadic scenario (TOR Warnings)
 - Any widespread, damaging thunderstorm wind case
 - Numerous 1" hail or larger expected
 - Warnings that cover entire counties / long exp. Times
- Probably not needed for:
 - Isolated hail storms or small chances for 50kt winds
 - Warnings that cover small sections of a county or short durations
- High confidence = longer lead times for activations



2008 SANS Report

Lead Time (minutes to 1st warning) by range



Spotter Activation Notification System (SANS)

- **Pros:**

- Provides more clear guidance to spotters
- Multiple notification methods
- Relatively quick procedure

- **Cons:**

- Added step for WFO operations staff
- Decision to make; something else to track
- Entire county alerted
- Need to keep database updated



EMNotify

- GOAL: Make Emergency Management officials more aware of weather that has impacted their area; solicit more feedback
- Application that filters NWS products by state/county (parish) for past 1, 2, or 3 days
- Automatic daily email sent to EMs if anything issued for their county
- CRH text database as source



EMNotify

- Tornado Watches
- Severe Thunderstorm Watches
- Flood Watches
- Tornado Warnings
- Severe Thunderstorm Warnings
- Flash Flood Warnings
- Severe Weather Statements
- Flash Flood Statements
- Flood Warnings
- Flood Statements
- Non-Precip. Products (NPW)
- Winter Weather Products (WSW)
- Special Weather Statements
- Local Storm Reports



EMNotify

- Email message sent -


“Hazardous weather product(s) have been issued for OLMSTED County... this message will be sent only when hazardous weather products were issued for your county during the previous 24 hours.

See <http://www.crh.noaa.gov/arx/emNotify> for details.

This is an automated message.”



http://weather.gov/arx/emNotify



National Weather Service Weather Forecast Office

La Crosse, WI

Home Site Map News Organization Search for: NWS All NOAA


Local forecast by "City, St" or Zip Code

City, St

XML RSS Feeds

- Current Hazards
- Watches/Warnings
- Outlooks
- Submit Report
- Current Conditions
- Observations
- Radar
- Satellite
- Observed Precip
- Forecasts
- Forecast Discussion
- Activity Planner
- Aviation Weather
- Fire Weather
- Severe Weather
- Winter Weather
- Hydrology
- Rivers & Lakes
- Climate
- Local
- National
- Drought
- More...
- Weather Safety
- Preparedness
- Weather Radio
- StormReady
- SkyWarn
- Additional Info
- Items of Interest
- Education Resources
- Coop Observer
- Top News Archives
- Our Office
- Storm Summaries
- Contact Us
- Contact Info

weather.gov



Hazardous Weather Information Search

This page will return a list of NWS hazardous weather informational products (ie, tornado warnings, winter weather advisories, etc.) for a specified county over the past 1 to 3 days.

How to use: Select the state of interest, the number of days you wish to search (1 to 3), and then the county of interest. A list of all the hazardous weather products will be returned for that county. Each product in the listing can be viewed and printed.

Note: Only counties for which hazardous weather products have been issued within the specified time frame will be available to be searched.

Select State:

Include 1 2 3 days in the report.

Select County:

La Crosse WI

1 Day Hazardous Weather Summary ending Dec 23:



Winter Weather Message:

- [Winter Storm Watch by KARX Continued 358 AM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 619 AM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 912 AM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 1153 AM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 325 PM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 325 PM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 757 PM CST TUE DEC 22](#)
- [Winter Storm Watch by KARX Continued 122 AM CST WED DEC 23](#)
- [Winter Storm Watch by KARX Upgraded 358 AM CST WED DEC 23](#)
- [Winter Storm Warning by KARX New event 358 AM CST WED DEC 23](#)
- [Winter Storm Warning by KARX Continued 926 AM CST WED DEC 23](#)

Local Storm Reports:


- [0804 AM 12/22 for SNOW at HOLMEN 2S](#)
- [0653 AM 12/22 for SNOW at LA CROSSE NWS](#)
- [0510 AM 12/22 for SNOW at LA CROSSE NWS](#)
- [0420 AM 12/22 for SNOW at LA CROSSE WKBT TV](#)

Local intranet




National Weather Service
La Crosse, WI

http://weather.gov/arx/emNotify



National Weather Service Weather Forecast Office

La Crosse, WI



weather.gov

Home Site Map News Organization Search for: NWS All NOAA

Local forecast by "City, St" or Zip Code

City, St

XML RSS Feeds

Current Hazards
Watches/Warnings
Outlooks
Submit Report

Current Conditions
Observations
Radar
Satellite
Observed Precip

Forecasts
Forecast Discussion
Activity Planner
Aviation Weather
Fire Weather
Severe Weather
Winter Weather

Hydrology
Rivers & Lakes
Climate
Local
National
Drought
More...

Weather Safety
Preparedness
Weather Radio
StormReady
SkyWarn

Additional Info
Items of Interest
Education Resources
Coop Observer
Top News Archives
Our Office
Storm Summaries
Contact Us

Hazardous Weather Information Search

This page will return a list of NWS hazardous weather informational products (ie, tornado warnings, winter weather advisories, etc.) for a specified county over the past 1 to 3 days.

How to use: Select the state of interest, the number of days you wish to search (1 to 3), and then the county of interest. A list of all the hazardous weather products will be returned for that county. Each product in the listing can be viewed and printed.

Note: Only counties for which hazardous weather products have been issued within the specified time frame will be available to be searched.

Select State:

Include 1 2 3 days in the report.

Select County:

Shelby TN

2 Day Hazardous Weather Summary ending Jan 27:

Urgent Weather Message:
[Wind Advisory by KMEG New event 358 AM CST MON JAN 25](#)
[Wind Advisory by KMEG Extended \(time\) 1144 AM CST MON JAN 25](#)

Winter Weather Message:
[Winter Storm Watch by KMEG New event 333 PM CST TUE JAN 26](#)
[Winter Storm Watch by KMEG Continued 849 PM CST TUE JAN 26](#)
[Winter Storm Watch by KMEG Continued 330 AM CST WED JAN 27](#)
[Winter Storm Watch by KMEG Continued 1109 AM CST WED JAN 27](#)

Special Weather Statement:
[624 AM CST MON JAN 25](#)
[333 PM CST MON JAN 25](#)
[1051 PM CST MON JAN 25](#)
[1055 PM CST MON JAN 25](#)
[331 AM CST TUE JAN 26](#)

EMNotify

- **Pros:**
 - Sorts informational products for EMs
 - Handy reference tool
 - Easy to use
- **Cons:**
 - Too routine for EMs
 - Unsure goal is being achieved



Summary

HWO Dissemination (BEFORE)

Spotter Activation (DURING)

EMNotify (AFTER)

- Locally developed applications to solicit more involvement by Emergency Management and storm spotter partners
- Tried to keep process as automated as possible with minimal impact on WFO staff



Summary

- GOAL: Protect and Life Property
 - More partner involvement
 - More information flow
 - More preparedness
 - Better / More accurate warnings
- Results? Unsure – but well received so far and believe we are headed in the right direction...

Better customer support / decision making

