



Preparing Venues and Large Events for Severe Weather



Preparing Venues for Severe Weather



Who is responsible for keeping people safe from severe weather at large events?



Venues



National Weather Service



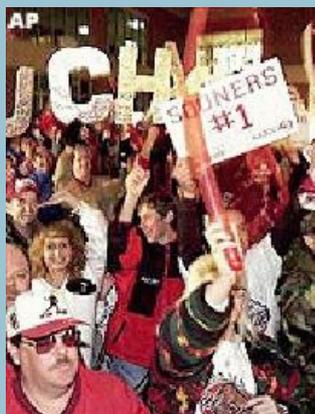
Emergency Management, Homeland Security



Insurance Industry



Broadcast Media



Each Individual



Private Weather Industry



Community Volunteers

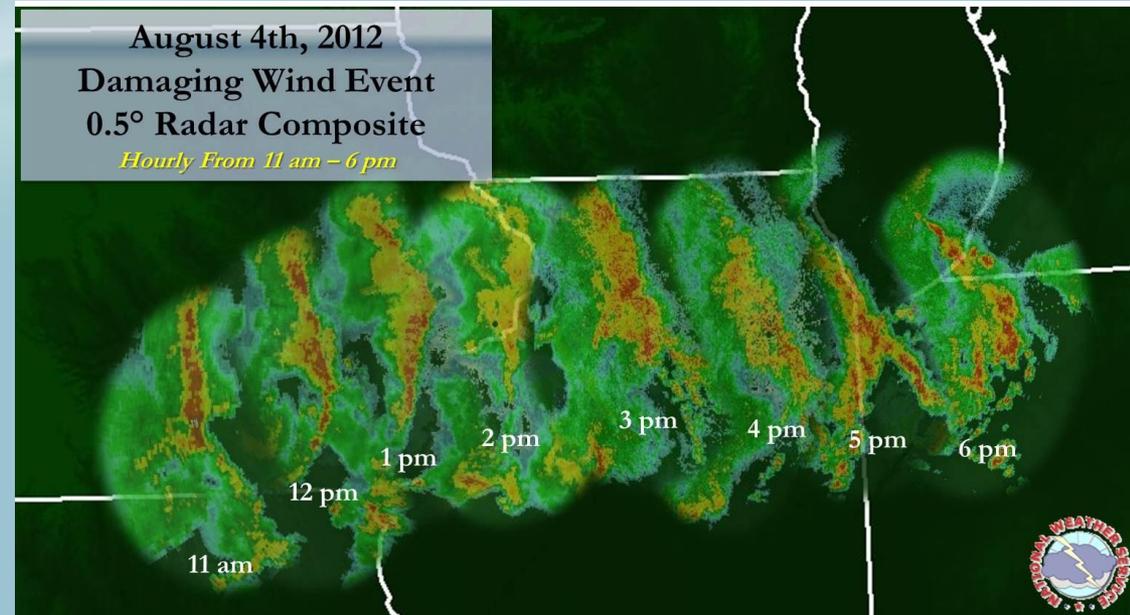


Success Story: Lollapalooza 2012



Concert was suspended for 2 ½ hours due to an approaching severe storm.

- Grant Park in Downtown Chicago
- 61,000+ concert-goers, plus staff, vendors, musicians
- Winds of 70+ mph, torrential rain, dangerous lightning
- Crowd was directed to three pre-designated shelters
- No injuries, no arrests



Theo Wargo, Getty Images

Success Story: Lollapalooza 2012



Throughout the Week

NWS Chicago briefs potential for severe storms to the Chicago Office of Emergency Management and Communication (OEMC), and to Chicago Police, Fire and Parks Departments.

Friday, August 3rd (Day Before)

NWS Chicago conducts 5 scheduled weather briefings with emergency officials. Severe weather possible.

Afternoon Saturday, August 4th (1200 PM-355 PM)

Multiple briefings given by NWS to OEMC. All updates on severe weather potential.

147 PM Saturday, August 4th

Severe Thunderstorm Watch Issued by NWS Storm Prediction Center

230 PM

OEMC, city agencies meet with concert promoters to discuss weather and decide to order an evacuation.

322 PM

NWS Chicago issues a "Special Weather Statement" mentioning storms hitting Grant Park around 400 PM.

330 PM

Evacuation orders given. Crowd is directed to three pre-designated sites. (Evacuation complete at 408 PM)

350 PM

NWS Chicago issues Severe Thunderstorm Warning

430-500 PM

Storm arrives with 60-70+ mph winds, quarter-sized hail, torrential rain and dangerous lightning

600 PM

Concert resumes after a survey was done to ensure the area was safe.

Success Story: Lollapalooza 2012



Success Story: Lollapalooza 2012



So what came together to keep all these people safe?

4 STAGES OF WARNING RESPONSE

- 1) Planning
- 2) Practicing/Preparing
- 3) Monitoring
- 4) Acting



Success Story: Lollapalooza 2012



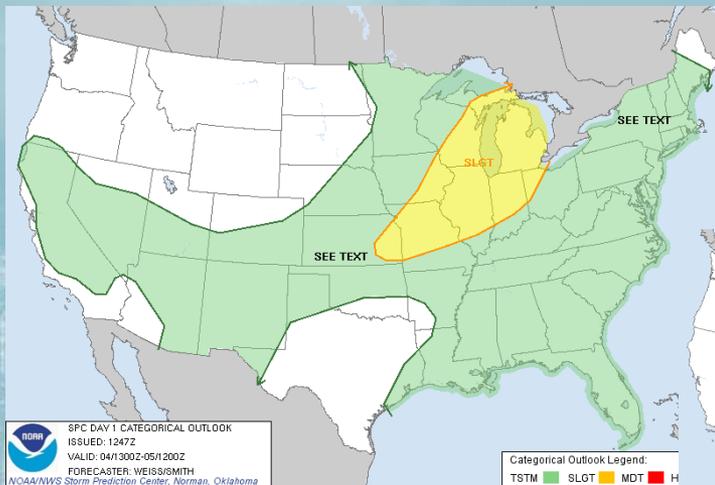
Warning Response: Planning

- Agencies responsible for safety were already familiar with one another
 - Strong relationships and communication between agencies
 - NWS met with OEMC to coordinate and plan services for outdoor events in Dec. 2011
 - NWS attended event meetings with OEMC, city agencies in the months preceding the event
 - Scheduled weather briefings
 - Strong relationship and communication between OEMC and Concert Promoters
 - Constant contact during storms
- Venue/Concert had emergency plan
 - Evacuation sites
 - Ways to communicate information
 - Staff and emergency officials knew what to do
 - Evacuation was “ordinary event”
- NWS used a multitude of services to highlight potential for severe weather and 100 degree heat index days in advance

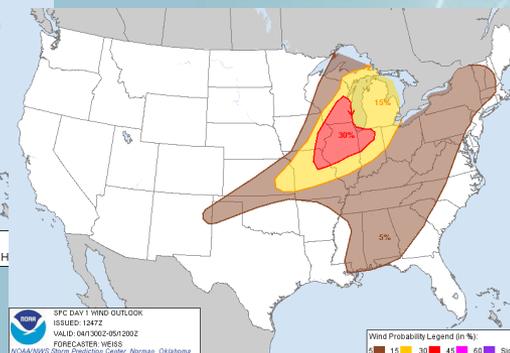
Success Story: Lollapalooza 2012

Warning Response: Practicing/Preparing

- Orderly evacuation was the result of a well-developed emergency plan
- Heightened awareness of severe weather potential (NWS, Media)
 - Outlooks days in advance
 - Severe Thunderstorm Watch
- Emergency officials and concert promoters met hours before the storm to discuss possible evacuation



Outlooks issued by the Storm Prediction Center highlighted severe weather threat, especially damaging winds.



Success Story: Lollapalooza 2012



Warning Response: Monitoring

- Process started days before concert and continued until the evacuation
- Numerous weather briefings by NWS to OEMC
- OEMC passed weather information to concert promoters
- NWS watches, warnings, and statements all specifically mentioned Grant Park



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BULLETIN - IMMEDIATE BROADCAST REQUESTED
SEVERE THUNDERSTORM WARNING
NATIONAL WEATHER SERVICE CHICAGO/ROMEDEVILLE IL
350 PM CDT SAT AUG 4 2012
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THE NATIONAL WEATHER SERVICE IN CHICAGO HAS ISSUED A

- SEVERE THUNDERSTORM WARNING FOR...
COOK COUNTY IN NORTHEAST ILLINOIS...
EASTERN DUPAGE COUNTY IN NORTHEAST ILLINOIS...
SOUTHEASTERN LAKE COUNTY IN NORTHEAST ILLINOIS...
NORTHEASTERN WILL COUNTY IN NORTHEAST ILLINOIS...
NORTHERN LAKE COUNTY IN NORTHWEST INDIANA...
NORTHWESTERN PORTER COUNTY IN NORTHWEST INDIANA...
- UNTIL 445 PM CDT
- AT 348 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A LINE OF SEVERE THUNDERSTORMS CAPABLE OF PRODUCING QUARTER SIZE HAIL...AND DESTRUCTIVE WINDS IN EXCESS OF 70 MPH. THESE STORMS WERE LOCATED ALONG A LINE EXTENDING FROM CAROL STREAM TO PEOTONE... AND MOVING EAST AT 50 MPH.
- SEVERE THUNDERSTORMS WILL BE NEAR...
WOOD DALE...ITASCA...MEDINAH AND ELK GROVE VILLAGE AROUND 355 PM CDT.
ROSEMONT...OHARE AIRPORT...PARK RIDGE AND DES PLAINES AROUND 400 PM CDT.
SKOKIE...NILES...MORTON GROVE AND GLENVIEW AROUND 405 PM CDT.
EVANSTON...WILMETTE HARBOR AND WILMETTE AROUND 410 PM CDT.

THIS INCLUDES THE CITY OF CHICAGO.

OTHER LOCATIONS AFFECTED...
GRANT PARK...FIRST MIDWEST BANK AMPHITHEATRE...HAWTHORNE PARK...ILLIANA MOTOR SPEEDWAY...

I-55 BETWEEN MILE MARKERS 267 AND 268.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

SEEK SHELTER IN A STURDY STRUCTURE AND STAY AWAY FROM WINDOWS UNTIL THESE STORMS HAVE PASSED.

THESE STORMS HAVE A HISTORY OF PRODUCING WIDESPREAD WIND DAMAGE ACROSS WESTERN AND SOUTHWESTERN PORTIONS OF THE METRO AREA. THIS IS AN EXTREMELY DANGEROUS SITUATION. SEEK SHELTER NOW INSIDE A STURDY STRUCTURE AND STAY AWAY FROM WINDOWS!

Success Story: Lollapalooza 2012



Warning Response: Acting

- Decision to evacuate 61,000+ people
- Concert stages shut down simultaneously; audiences alerted
- Sent to three designated, pre-determined parking garages
- Actions take to prevent injuries/damage
 - Large banners on stage taken down
 - LED screens lowered
- Information delivered through:
 - Social media (FB, Twitter)
 - Message boards
 - Loud speakers
 - Police/public safety
 - Concert website



Success Story: Lollapalooza 2012

Warning Response: Acting



Lollapalooza
23 hours ago

ATTENTION: Serious weather is about to hit Grant Park. ALL festival goers must evacuate IMMEDIATELY. Head to our three evacuation locations NOW:

NORTH
25 N Michigan Ave at Madison (between Washington and Madison)

SOUTH
325 South Michigan (between Jackson and Van Buren)

EAST
Michigan between Jackson and East Adams

Like · Comment · Share 160

456 people like this.

View all 281 comments



Lollapalooza @lollapalooza 4 Aug

ATTENTION: Serious weather is about to hit Grant Park. ALL festival goers must evacuate IMMEDIATELY. Head to our 3 evacuation locations NOW.

[Collapse](#) [Reply](#) [Retweet](#) [Favorite](#)



Lolla Brasil
Lolla Chile

GRANT PARK
CHICAGO, IL

Lollapalooza 2012
AUG 3rd-5th

TICKETS LINE-UP EXPERIENCE FAQs CONNECT HISTORY

Souvenir 3-Day Pass	\$75	SOLD OUT
Early Bird 3-Day Pass	\$200	SOLD OUT
Regular 3-Day Pass	\$230	SOLD OUT
Single 1-Day Pass	\$95	SOLD OUT

AUG. 4, 2012

LOLLAPALOOZA IS BACK ON! DOORS ARE OPEN, SEE NEW SCHEDULE

Lollapalooza will resume at 6:00 PM following a brief postponement due to dangerous weather conditions and warnings.

Festival-goers were evacuated this afternoon from Grant Park and directed by staff and the Chicago Police Department to pre-established underground evacuation and shelter sites along Michigan Avenue.

Organizers working with the Chicago Office of Emergency Management and Communications have been monitoring the storm and determined weather conditions are safe for people to return and Lollapalooza to resume.

Today's updated schedule of performances can be found at Lollapalooza's official website.

"We want to thank the tens of thousands of festival goers, staff, and artists who calmly and safely exited from Grant Park today," said Charlie Jones, partner of C3 Presents, the promoter for Lollapalooza. "We also applaud and thank the City of Chicago for their cooperation and commitment to making Lolla a safe and enjoyable experience for all. Once again Chicago has come through and we're proud to call the city our partner."

Posted in: Lolla News Like 2.2k Tweet 1,157

NEWS & UPDATES

LOLLAPALOOZA SUSPENDED DUE TO DANGEROUS WEATHER

Due to an approaching storm and warnings from the National Weather Service (NWS), Lollapalooza organizers have suspended the festival until further notice.

Warning Response



So what can you do to keep attendees at your large events safe?

4 STAGES OF WARNING RESPONSE

- 1) Planning**
- 2) Practicing/Preparing**
- 3) Monitoring**
- 4) Acting**



Warning Response: Planning



1st Step: Hazard Assessment!

- What hazards are possible in your area (not just weather)?
- What risks do they pose?
- How likely are they to occur?
- What would be the potential impact?
- What are the strengths and weaknesses of your venue?
- What can be done to reduce risk?

Your hazard assessment will help you create a severe weather plan.

 **Activity: Needs Assessment**

Below is a job aid to help you assess your organization's exercise needs. Use this tool to analyze where you may wish to focus your organization's exercise design efforts. In completing this needs assessment, you may wish to consult such resources as planning documents, demographic or corporate data, maps, and training records. (Note: This assessment form also appears as Job Aid 1 in Appendix A.)

1. Hazards

List the various hazards in your community or organization. What risks are you most likely to face? You can use the following checklist as a starting point. **Note:** If your community has already conducted a hazard analysis, that is the best resource.

<input type="checkbox"/> Airplane crash	<input type="checkbox"/> Sustained power failure
<input type="checkbox"/> Dam failure	<input type="checkbox"/> Terrorism
<input type="checkbox"/> Drought	<input type="checkbox"/> Tornado
<input type="checkbox"/> Epidemic (biological attack)	<input type="checkbox"/> Train derailment
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Tsunami
<input type="checkbox"/> Fire/Firestorm	<input type="checkbox"/> Volcanic eruption
<input type="checkbox"/> Flood	<input type="checkbox"/> Wildfire
<input type="checkbox"/> Hazardous material spill/release	<input type="checkbox"/> Winter storm
<input type="checkbox"/> Hostage/Shooting	<input type="checkbox"/> Workplace violence
<input type="checkbox"/> Hurricane	<input type="checkbox"/> Other _____
<input type="checkbox"/> Landslide/Mudslide	<input type="checkbox"/> Other _____
<input type="checkbox"/> Mass fatality incident	<input type="checkbox"/> Other _____
<input type="checkbox"/> Radiological release	<input type="checkbox"/> Other _____

Warning Response: Planning Weather Hazards



Lightning

Frequency:

- 30 to 40 thunderstorm days per year
- Typical severe thunderstorm event produces thousands of lightning strikes

Lead Time and Warnings:

- Minutes to hours
- Warnings not issued for lightning

Impacts:

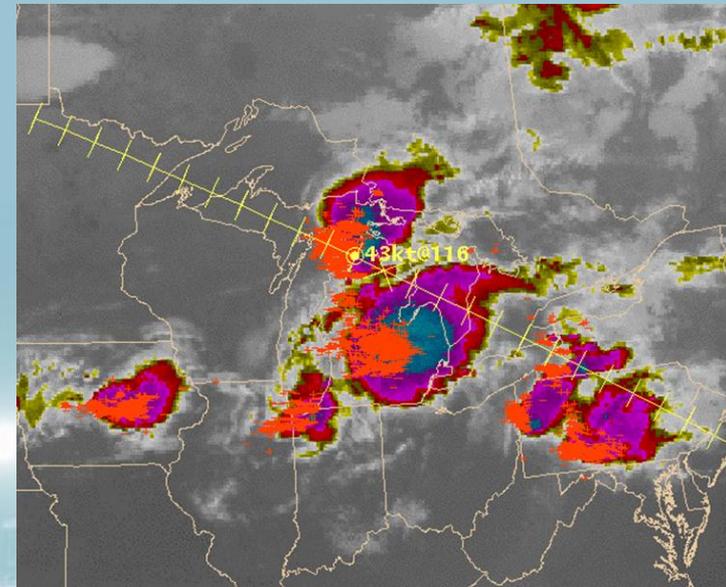
- Fatalities or injuries, panic
- Damage (including electronics)
- Event delay or postponement

Safety Precautions:

- Shelter in buildings or automobiles



Fenway Park, 2003



Over 10,000 lightning
strikes in 1 hour!

Warning Response: Planning Weather Hazards



Hail

Frequency:

- 10 days per year (per county)
- Baseball-sized hail is rare (very strong storm)

Lead Time and Warnings:

- Short, about 20 minutes
- Severe Thunderstorm: 1 inch or larger

Impacts:

- Injuries, panic
- Damage (especially glass, vehicles, tents)
- Event delay or postponement

Safety Precautions:

- Shelter under well-constructed roofs and away from windows and doors
- Avoid automobiles



Warning Response: Planning Weather Hazards



Flooding/Flash Flooding

Frequency:

- 2 times per year (per county)

Lead Time and Warnings:

- Minutes to hours
- Flood or Flash Flood Warning
- Urban and Small Stream Flood Advisories

Impacts:

- Injuries or fatalities in swift water
- Roads and parking lots covered with water
- Stranded vehicles
- Event delay or postponement

Safety Precautions:

- Seek higher ground
- Avoid automobiles



Jack Trice Stadium (Iowa), 8-10-11

Warning Response: Planning Weather Hazards



Straight-Line Winds

Frequency:

- 12 days per year (per county)
- Biggest cause of thunderstorm-related fatalities, injuries, damage in Michigan

Lead Time and Warnings:

- 20 minutes to 2 hours
- Severe Thunderstorm: 58 mph or greater

Impacts:

- Fatalities or injuries, panic
- More widespread damage than tornadoes
- Launch tents into air
- Create projectiles (trash cans, vendor displays, glass)
- Event delay or postponement

Safety Precautions:

- Shelter in well-constructed buildings
- High Risk Day: Consider postponement



35 injuries, one serious, occurred at Busch Stadium (baseball game) as 60-90 mph winds ripped through the area for 30 min. (7-19-06)

Warning Response: Planning Weather Hazards



Tornadoes

Frequency:

- Once every 2 to 5 years (per county)
- Most are EF2 or lower

Lead Time and Warnings:

- Short (10 min. national average)
- Tornado Warning

Impacts:

- Fatalities, many injuries, widespread panic
- Widespread, serious damage
- Stranded people, Search and Rescue
- Outside response may be slowed by physical obstructions (trees, power lines) or larger community needs
- Communication outages

Safety Precautions:

- Shelter in window-less interior rooms of well-constructed buildings
- High Risk Day: Consider postponement



**Tornado damage at the Atlanta Motor Speedway. No races were in progress.
(7-6-05)**

Warning Response: Planning Weather Hazards



Extreme Heat or Cold

Frequency:

- 4 events per year

Lead Time and Warnings:

- Days
- Excessive Heat Warning, Wind Chill Warning (extreme)
- Advisories for both (action needed)

Impacts:

- Sunburn, frostbite
- Heat illnesses, hypothermia
- Fatigue, irritability of employees and attendees
- Event delay or postponement

Safety Precautions:

- Extra cooling or warming precautions (fires, cooling tents, water)



One of many fires at the 2013 Michigan Winter Beer Festival





Warning Response: Planning Severe Weather Plan

- Every venue or large event should have one
- Developed around your Hazard Assessment
- Addresses vulnerabilities
- Clearly define who is in charge of making weather-related decisions
- Details on how to obtain weather information
- Weather thresholds that trigger decisions or actions
- ALL staff members must be trained and should practice
- Capabilities and resources available both on and off site
- Communication capabilities (back-ups)
- Address crowd control (panic)
- Don't forget about people with special needs
- Work with your local Emergency Manger, local response officials or your insurance company



Warning Response: Planning Severe Weather Plan

Assign and train designated “weather watchers”

- Specific person in charge of collecting weather information and notifying decision-makers during emergencies
- Starts monitoring weather up to one week before event
- Monitors weather during the event
- Knows decision thresholds
- Capable of quickly informing decision-maker
- Has multiple ways to receive weather information and warnings
- Keep a list of qualified people and last training date
- NWS can help with SkyWarn Spotter Training





Warning Response: Planning Severe Weather Plan

Warning Procedures

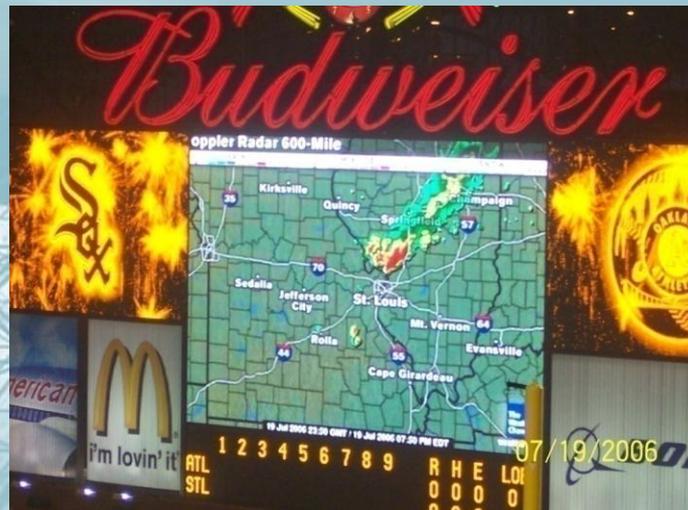
- Develop criteria and procedures for notification and activation of “warning systems”
- Starts with designated weather watcher notifying decision-maker
- Ends with notification of all staff
- Multiple (back-up) methods of getting information out
- For very large events, have someone serve as a liaison with local emergency services (Emergency Management, Police, Fire)
- Implementing this stage of the plan will lead to ACTION!



Warning Response: Planning Severe Weather Plan

Communications Plan

- Multiple ways to disseminate information to the public
- Clear, concise, consistent message fosters trust and reduces panic
- Programs and other printed materials (In event of severe weather, go to...)
- Utilize message boards, public address systems, performers, social media
- All staff should know how to get information



Warning Response: Planning Severe Weather Plan

Resumption or Cancellation of Event

- Must determine if it's safe to resume activities
- Who has the authority to decide
- List of systems or structures that need to be checked, and who is qualified to check them
- Methods of communication



Kennywood Amusement Park, PA (5-31-02)



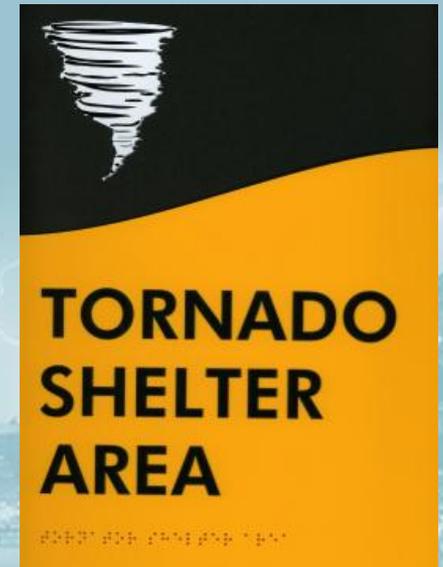
Salt Lake City, UT (8-11-99)



Warning Response: Planning The Venue

Construction and engineering considerations

- Advanced planning during design process
- Safe shelter areas – shielded from winds and flying objects
- Shelters accessible in 10 minutes or less
- Public address systems



Warning Response: Planning The Venue

Simple actions can prevent injuries:

- Determine safe shelters
 - **Within structures, shielded from debris**
 - Interior rooms
 - No glass
 - Automobiles???
- Shelters clearly marked
- Pre-determined evacuation routes
- Fasten down items such as vendor carts, trash cans, signage



Warning Response: Planning Outdoor Venues (no shelter)

Still need a plan...

- Empower the individual by providing information
- Signage or information at entrance
- Printed materials with shelter and evacuation routes
- Clearly marked shelters, if available
- Signage at trailheads
- Emergency plan (search and rescue) in case roads are blocked



Some parks use signs similar to those on the highway to warn of potential for severe weather or wildfires.



Response to tornado victims at the Little Sioux Scout Ranch was slowed due to isolated location and debris.

Warning Response: Practicing/Preparing



Having a plan is not enough!

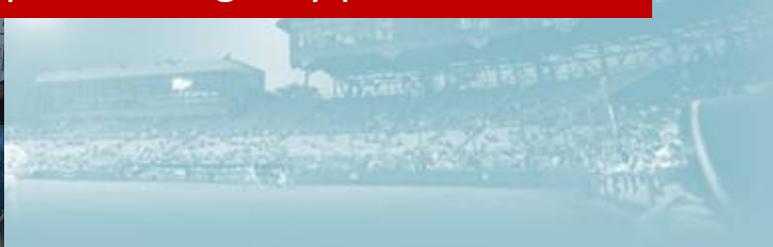
- Test your severe weather plans regularly
 - Communications
 - Warning procedures
 - Public notification systems
- Drills and exercises flush out weaknesses and identify vulnerabilities
- Emergency management community may be able to help
- FEMA Courses

Table-Top Exercise:

Participants verbally go through an emergency scenario, discussing what they would do and how.

Functional or Full-Scale Exercise:

Participants physically go through a scenario, testing all systems and steps of emergency plan.

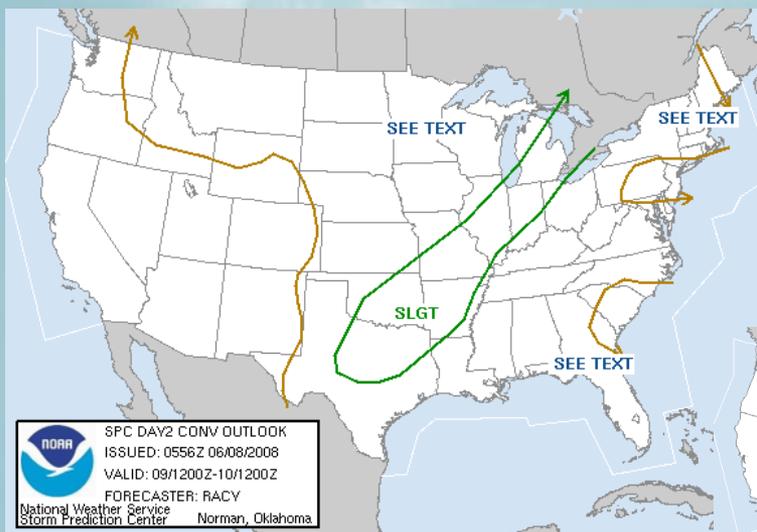


Warning Response: Practicing/Preparing

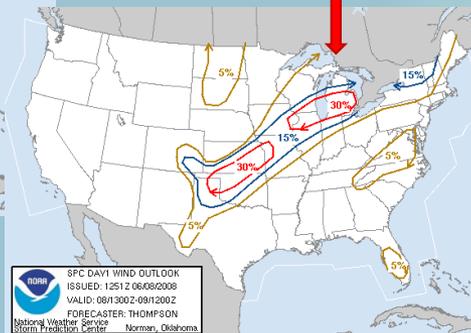


Outlook and Watch periods are a great time to review severe weather plans.

- Who will be your designated weather watcher(s)?
- Who will be in charge of making decisions during that event?
- How will everyone get their information?
- Does everyone know what to do?
- Are you ready to quickly notify staff and attendees if it becomes necessary?



**High
damaging
wind threat**



Warning Response: Monitoring



- Should begin days in advance and continue until event is over
- Designated weather watcher should monitor watches, warnings, and other information
- Failing to monitor greatly minimizes the amount of time the public has to react
- Pass on information. Do not keep it a secret! (Empower individuals)
 - Display radar
 - Facebook and Twitter (Can simply Share or Retweet NWS info.)
- Use graphics, non-technical, easy to understand instructions



Radar on big screen at Busch Stadium
(St. Louis, MO)

Warning Response: Monitoring



Imperative to have multiple ways to receive information during severe weather.

- Television, Radio, or other media (EAS activation)
 - May interrupt programming or provide non-stop coverage
- Local NWS and NWS Storm Prediction Center Websites
 - <http://weather.gov/detroit>
 - <http://www.spc.noaa.gov>
- Hire private sector meteorologists
 - List available from American Meteorological Society
- NOAA Weather Radio All Hazards
- On-site weather equipment
- Outdoor Warning Sirens (where available)



Warning Response: Monitoring



Imperative to have multiple ways to receive information during severe weather.

- Cell phone apps and alerts, email alerts
 - NWS cannot develop apps
 - NWS does have a list available
- Facebook and Twitter (reliable feeds, can “Share” or “RT”)
 - US National Weather Service Detroit/Pontiac Michigan
 - @NWSDetroit, #miwx
- Situational Awareness Displays

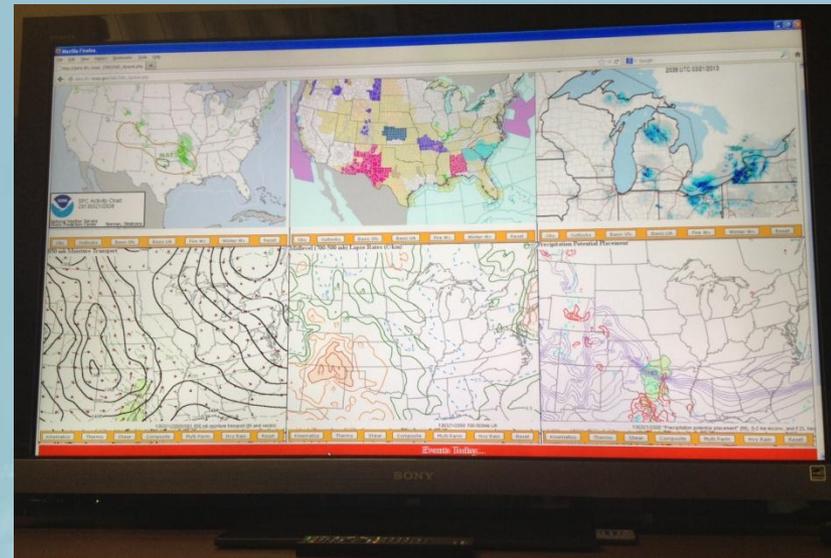


Warning Response: Monitoring



Situational Awareness Displays

- Great way to keep up with information at a glance
- Recommend a display that includes radar and weather warnings

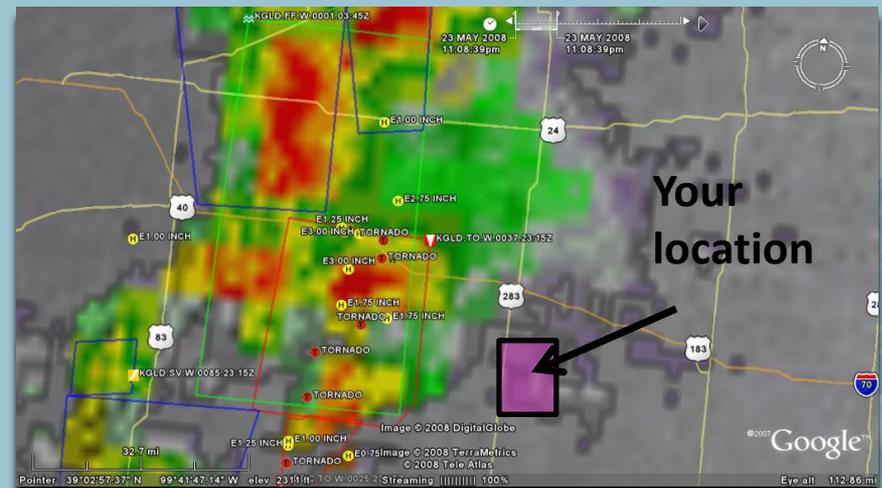
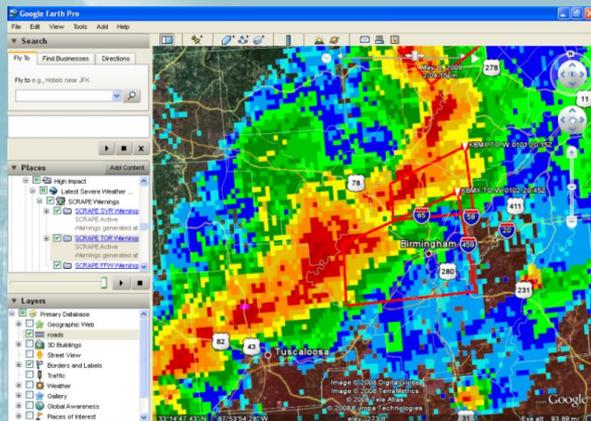


Warning Response: Monitoring

Situational Awareness Displays: Google Earth

Set up real-time weather monitoring for **YOUR LOCATION!**

- Free program with stunning areal imagery
- Overlay NWS radar, warning polygons, storm reports
 - Radar: <http://radar.weather.gov/ridge/kmzgenerator.php>
 - Other data: <http://www.srh.noaa.gov/gis/kml/>
- Easy to email or display



Warning Response: Acting



Time to implement your severe weather plan!

- Weather watchers still monitor and update decision-maker
- Notify all staff
- Halt event and implement necessary safety precautions
- Use pre-determined methods to notify attendees
- Guide attendees to shelters, evacuation sites (crowd control)
- Continuous flow of information will help prevent panic
- Utilize message boards, public address systems, performers, social media
- In case of serious injuries or damage, call proper authorities
- Provide medical treatment to those injured



Warning Response: Acting

People go through stages once they hear of a threat:

- Hearing
 - Understanding
 - Believing
 - Personalizing
 - Confirming
 - Deciding and Responding
 - Acting
- Practicing/Preparing, Monitoring
- 

Warning Response: Acting

Factor that affects response by public:

- Perceived susceptibility
- Severity of threat
- Belief in a positive outcome with action
- “Cry Wolf” syndrome (WDTB, NOAA, 2004)

What can help make people act?

- Continuous flow of information to confirm threat (Storm has already done damage)
- Graphics on screens (radar, warning polygons)
- Clear, concise language
- Well-organized safety procedures





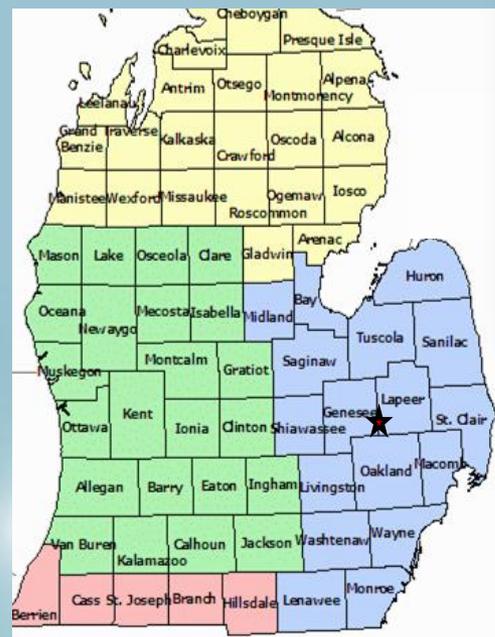
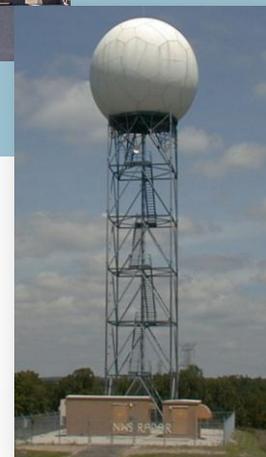
The Role of the National Weather Service in Event Support



The National Weather Service



- 122 Weather Forecast Offices
- Federal government
- All services are free
- Monitor weather conditions 24/7
- Issue watches, warnings, advisories as needed
- Public weather forecasts (7 days)
- River Forecasts
- NOAA Weather Radio/EAS Activation
- Weather support to local, state, and federal officials during emergencies and large events



The National Weather Service has the **sole** responsibility of issuing watches and warnings for the entire country.

NWS Detroit/Pontiac:
17 counties in southeast Michigan, Lake Huron, Lake St. Clair and Western Lake Erie

NWS Special Event Support



The National Weather Service may provide meteorological support to events where large numbers of people may be exposed to dangerous weather phenomena.

- Support services *MUST* go through emergency services channel (Emergency Managers, local fire and police, state and local governments)
- NWS is restricted from directly supporting private entities and event staff.



NWS Special Event Support



Part of our Decision Support Services Program

- Weather Support for Incidents, Emergency Response, Exercises/Drills, Special Events
- Building stronger relationships with Federal, State and local agencies

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.”

Decision Support Services:

Provide government decision makers with critical environmental data and forecasts to allow them to better protect life and property.

We're just providing information to help those with similar missions!

NWS Special Event Support



National Weather Service will provide specific and tailored support to emergency managers and emergency service personnel:

- Understand a customer's specific needs
- Communicate concisely in non-technical terms
- Communicate with tools convenient to the decision-maker
- Adapt to changing work environments
- Interpretive services
- Help identify potential impacts from weather
- Know our role in the Incident Command System
- Knowledgeable about different types of incidents and response
- Unbiased and accurate data and forecasts

Future of the NWS will be focused on supporting incident response and high impact events where weather is a factor.

NWS Special Event Support



Some examples of what the NWS may provide:

- Weather briefings to public safety officials during, and leading up to the event
- 24 hour weather watch with notification for weather emergencies
- Chemical plume modeling, in case of a hazardous materials release
- Monitor 800 MHz radio event channels
- Webinars may be held
- “Spot” forecasts posted to web
- Remote support from the NWS forecast office for most events
- NWS Meteorologists can staff EOC/JOC/ICP for large or high-security events
- Attend planning meeting for large events
- Review Event Severe Weather Plans
- Weather forecasts and updates in WebEOC (if available)

Support services will be determined for each individual event based on what is needed to ensure public safety. This can range anywhere from a public safety official making as-needed phone calls to the NWS during an event to on-site staffing.

NWS Special Event Support



What the NWS cannot provide:

- Cannot advise officials what to do with the information (i.e. evacuate a stadium or cancel an event)
- May not provide site-specific forecasts or customized services to event organizers to aid in decisions regarding the planning, running, or managing of the event



Flooding at U.S. Open, 1996
Oakland Hills Country Club



NWS Special Event Support



Town Fireworks
Small Town Parade
Most Marathons

Most College and
Professional Sports
County Fairs
Most Concerts

Air shows
Car Cruises
Big Festivals
Sporting Tournaments

Professional Car Races
Many City of Detroit Events
High Security

Small

Medium

Large

Very
Large

Services NWS can provide:

Small and Medium Events:

- As needed information: phone calls from public officials to NWS (before, during event)
- Usually providing thunderstorm information (chances, timing, severity)
- Other information usually requested: Heat index, wind chills, Winds



NWS Special Event Support

Town Fireworks
Small Town Parade
Most Marathons

Most College and Professional Sports
County Fairs
Most Concerts

Air shows
Car Cruises
Big Festivals
Sporting Tournaments

Professional Car Races
Many City of Detroit Events
High Security

Small

Medium

Large

Very Large

Services NWS can provide:

Large Events:

- Weather briefings (as needed, usually at convenience of official in charge)
- 24/7 “Weather Watch” for pre-determined list of criteria
- Webinars if threatening weather is forecast
- Monitor State 800 MHz radio event channel
- Can attend planning meetings
- Help with hazard assessment

Examples: Detroit River Days Festival, Woodward Dream Cruise, Thunder Over Michigan Air Show, Bay City Fireworks Festival, Back to Bricks Festival, Ann Arbor Art Fair

NWS Special Event Support



Town Fireworks
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Professional Sports
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Car Cruises
Big Festivals
Sporting Tournaments

Professional Car Races
Many City of Detroit Events
High Security

Small

Medium

Large

Very
Large

Services NWS can provide:

Very Large Events:

- Meteorologists on-site to monitor weather and brief emergency officials
- Weather briefings (as needed, usually at convenience of official in charge)
- 24/7 “Weather Watch” for pre-determined list of criteria
- Webinars if threatening weather is forecast
- Monitor State 800 MHz radio event channel
- Can attend planning meetings
- Help with hazard assessment

Examples: Detroit Fireworks, NASCAR Races at MIS, NATO Summits

NWS Special Event Support



Why can't the NWS provide "head's up" phone calls for every event?

Time and staffing...

Average lead time for a Tornado Warning is only 10 minutes.

- Hundreds of events during an average summer weekend
- Could never support that many events
- Existing mass dissemination would be quicker in most cases
- Important you have a designated weather watcher

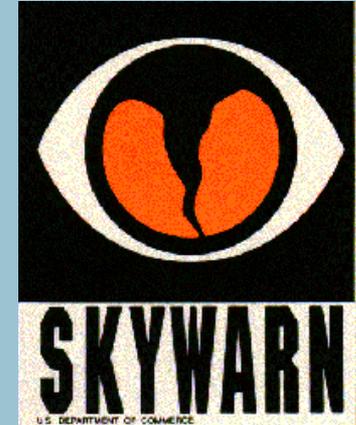


NWS Services: SkyWarn Spotter Training



SkyWarn Spotter Training

- Hosted by NWS and Emergency Management
- Severe weather courses available each spring and online
- Class offering and times can be found at the top of NWS Detroit website
- 1 ½ -2 hours
- Great training for your “Designated Weather Watchers”



Course Topics:

- Thunderstorm development and structure
- Identifying severe thunderstorms
- NWS Products that outlook severe weather
- Reporting severe weather to the NWS

National Weather Service Weather Forecast Office
Detroit/Pontiac, MI

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

Top News of the Day

- Expert Forecast Opinion
- Skywarn Spotter Training Classes Scheduled Across Southeast Michigan**
- 2013 Impact Based Warning Experimental Product Information
- Additional News Headlines

Watches & Warnings Observations Forecast Graphics Rivers & Lakes Climate Marine

Click on the map below for the latest forecast.

Read watches, warnings & advisories

Winter Storm Watch

Hazardous Weather Outlook

Short Term Forecast

Latest Conditions in Detroit Metro, MI

Mar 23 2:53 pm 37°F (3°C)



NWS Services: StormReady

StormReady

A nationwide preparedness program to help communities and facilities develop plans to handle all types of severe weather.

- Nationwide “grass-roots” program
- Certification (by local advisory board)
- Helps protect citizens from severe weather
- Proactive approach to dangerous weather
- StormReady does NOT equal Storm Proof!



Detroit Zoological Society





NWS Services: StormReady

What does StormReady Do?

- Helps keep people safe!
- Image incentive
- Improves overall communication and coordination
- Insurance rates?
- Fare better in litigation?
- Provides clear recommendations to improve operations
- Helps justify costs and purchases need to support weather-related programs



Bay City State Recreation Area



Saginaw Valley State University

NWS Services: StormReady



To become StormReady:

- Establish a warning point and emergency operations
- Create a system to monitor weather conditions
- Have more than one way to receive warnings and forecasts
- Multiple ways to alert people in attendance
- Shelter areas designated
- Develop a formal hazardous weather plan, which includes training of weather spotters and holding emergency exercises.

Southeast Michigan StormReady Venues/Parks:

Detroit Zoological Society

Genesee Valley Center

Great Lakes Crossing Outlets

The Mall at Partridge Creek

Twelve Oaks Mall

Wayne County Airport Authority

Saginaw Valley State University

Siena Heights University

University of Michigan- Flint

Bay City State Recreation Area

Metamora-Hadley State Recreation Area



NWS Services: StormReady



StormReady Supporters

- Program for those that cannot meet the StormReady requirements
- Requirements:
- Establish a warning point and “emergency operations center”
- Monitor weather conditions
- Multiple ways to receive warnings and forecasts
- Develop a formal hazardous weather plan, which includes training of weather spotters and holding emergency exercises.

Local StormReady Supporters Venues/Parks:

Many Michigan State Parks





NWS Services: StormReady

The Certification Process:

- Notify your local NWS office
- Complete an application and send to NWS for review
- Site visit by local StormReady Advisory Board
- Notification of acceptance or decline
- Recognition ceremony
- Recertification every three years



Mall at Partridge Creek



Metamora-Hadley State Recreation Area



University of Michigan - Flint

Preparing Venues for Severe Weather



- Good planning is vital!
- Venues and events must make plans ahead of time for severe weather
- Event staff must have regular training and drills
- Must have a way to notify the public
- High degree of situational awareness during events

Questions or Comments?