Severe Weather Preparedness Week

National Weather Service

March 20-26, 2016

March 20 - 26, 2016 is Severe Weather Preparedness Week in Indiana. The National Weather Service (NWS), in conjunction with the Indiana State Police and Public Safety Commission, Indiana Department of Homeland Security, Department of Education, the Indiana Broadcaster's Association, the Red Cross, and Amateur Radio Operators will conduct a statewide **test of communication systems on *Tuesday, March 22 at 10:15 A.M. and 7:35 P.M. EDT.* *If weather postpones the tests, make-up tests are Wednesday, March 23 at the same times listed.***

The goal of Severe Weather Preparedness Week is to build toward a *Weather Ready Nation* where Hoosiers are prepared for and respond to all dangerous weather and flood hazards.

This packet contains information about severe weather terms, safety rules, and some tornado events that affected Indiana. Daily statements will be issued on newswires and NOAA All Hazards Radio during the week. Your local National Weather Service office and our partners are available for interviews.

SPRING 2016

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OTHER DATES TO NOTE

* **Flood Safety Preparedness Week**
  March 20-26, 2016
  www.weather.gov/floodsafety
* **National Safe Boating Week**
  May 21-27, 2016
  www.safeboatingcouncil.org
* **Lightning Safety**
  Summer 2016
  www.lightningsafety.noaa.gov
* **Winter Weather Preparedness Week for Indiana**
  November 13-19, 2016

Preparedness Week Daily Focus

Sunday, March 20: **Kick-off**; Discuss Your, NWS, Media, Emergency Response Officials, Homeland Security, Red Cross, roles in Severe Weather

Monday, March 21: **Severe Weather Outlook & Watch**; Everyone's roles at the Outlook and Watch stages of an event

Tuesday, March 22: **Warning**; Everyone's role in Warnings; emphasize statewide

Wednesday, March 23: **Response**; Everyone's roles in responding to disasters (real-time response)

Thursday, March 24: **Recovery**; Everyone's roles in the recovery process (days/weeks/ months) after disaster

Friday, March 25: **Weather Ready Nation;** Readying your community for extreme weather, water and climate events

Saturday, March 26: **Wrap-up**; importance of preparedness and action during threatening hazards.

Graphical Weather Briefings are available as "Top News of the Day" at the top of NWS homepages whenever significant weather or flood hazards may occur. #INWX

SEVERE WEATHER PREPAREDNESS WEEK

TORNADOES

- **Indiana had a record 72 tornadoes in 2011. In 2015, Indiana saw 21 tornadoes while the annual average is 20. The last Indiana killer tornado was in 2012 in Henryville.**
- **Most tornadoes travel northeast. Forward speeds average near 30mph but can reach 60 mph. Other favored directions are from the northwest.**
- **Tornadoes occur year round but are most likely from April to June. Primary hours are from 3 p.m. to 8 p.m. with a second peak from 12 a.m. to 3 a.m.**

Check it Out: NWS Forecast for your computer, tablet, smartphone. It's experimental:

http://innovation.srh.noaa.gov/NWSwidget/ Try it and give us feedback!

TORNADO SAFETY

IN HOMES OR SMALL BUILDINGS:
Go to the basement (if available) or to an interior room on the lowest floor, such as a closet or bathroom. Wrap yourself in overcoats or blankets to protect yourself.

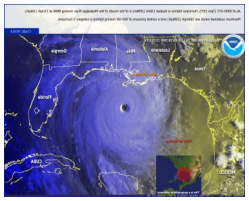
IN SCHOOLS, HOSPITALS, FACTORIES, OR SHOPPING CENTERS:
Go to interior areas on the lowest floor. Stay away from glass and very large rooms. Follow the instructions of the facility safety officials.

IN HIGH-RISE BUILDINGS:
Go to interior rooms or halls. Avoid exterior walls or glass.

IN CARS OR MOBILE HOMES:
Most tornado deaths occur in cars and mobile homes. If you have time, leave them for a substantial structure or designated tornado shelter. As last resort, lie flat in your car or nearby ditch and use your hands to cover your head.

SEVERE WEATHER PREPAREDNESS WEEK

Weather Ready Nation



NOAA's Weather-Ready Nation (WRN) is about building community resilience in the face of increasing vulnerability to extreme weather and water events. In recent years, increasing numbers of major storm and flood events have resulted in the greatest number of billion dollar disasters in our Nation's history. The NWS is transforming its operations to help America respond. In turn, officials, businesses and the public can make better, faster decisions to save lives and livelihoods.

The initiative includes several activities in every area of our work, from observing current conditions to increasing lead times on severe weather warnings to improving how we communicate our forecasts to the public. Building a Weather-Ready Nation starts with these internal actions, but requires the action of a vast nationwide network of partners including other government agencies and emergency managers, researchers, the media, insurance industry, non-profits, the private sector, the Weather Enterprise and more.

The goal of the WRN initiative is to support the mission of the National Weather Service by reducing risk and increasing community resilience for future extreme events.

#weatherreadynation see: http://www.nws.noaa.gov/com/weatherreadynation/

AMBASSADOR™ WRN WEATHER-READY NATION

An offshoot of WRN is the Weather-Ready Nation Ambassador™ initiative. The Ambassador program is a way we recognize our partners and other entities who are improving America's resilience against extreme weather, water, and climate events. As a WRN Ambassador, partners commit to working with NOAA and other Ambassadors to strengthen national resilience against extreme weather. In effect, the WRN Ambassador initiative helps unify efforts across many disciplines, making the nation more ready, responsive, and resilient against extreme environmental hazards.

A Weather-Ready Nation (WRN) is where society's response should be equal to the risk from all extreme weather, water, and climate hazards. The WRN Ambassador initiative is a unifying effort that is action-oriented and serves as a force multiplier where new partnerships can lead to more partnerships. To be officially recognized as a WRN Ambassador, an organization must commit to: promoting Weather-Ready Nation messages and themes to their stakeholders; exploring innovative approaches for collaboration with your organization; engaging with NOAA personnel on potential collaboration opportunities; sharing success stories of preparedness and resiliency; serving as an example by educating others.

We in turn will help you, keeping Ambassadors informed of upcoming hazards or providing toolkits tied to weather safety campaigns.

See http://www.nws.noaa.gov/com/weatherreadynation/ambassadors.html

SEVERE WEATHER PREPAREDNESS WEEK

Lightning Safety!

LIGHTNING SAFETY

www.lightningsafety.noaa.gov

All thunderstorms produce lightning and are dangerous. Lightning kills more people each year than tornadoes.

Lightning can strike as far as 10 miles away from any rainfall. Many deaths from lightning occur ahead of the storm because people wait to the last minute before seeking shelter. **You are in danger from lightning if you can hear thunder.** If you can hear thunder, lightning is close enough that it could strike your location at any moment. Get inside! **"When thunder roars go indoors!"**

Lightning injuries can lead to permanent disabilities or death. On average, 10% of strike victims die; 70% of survivors suffer serious long term effects.

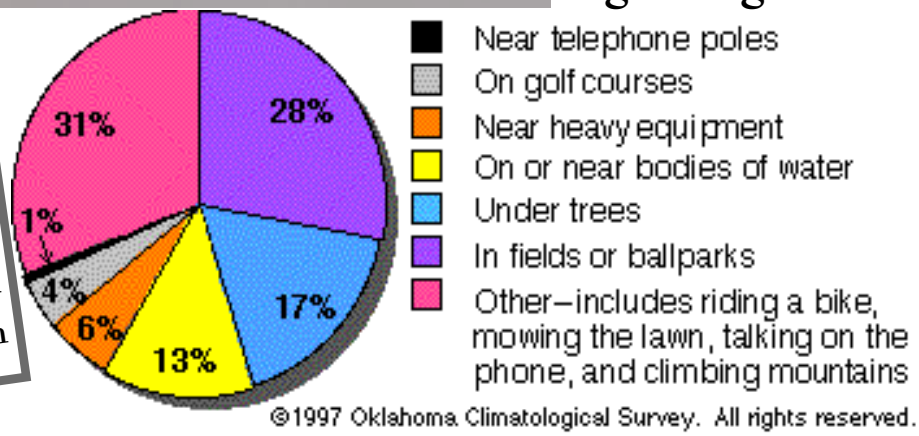
Blue Skies and Lightning. Lightning can travel sideways for up to 10 miles. Even when the sky looks blue and clear, be cautious. If you hear thunder, take cover. At least 10% of lightning occurs without visible clouds overhead in the sky.

- ***Inside a building with wiring or plumbing is safest. Inside a hard-topped vehicle is safer than outside but avoid contact with metal or outside parts of the vehicle.***
- ***If you can't get to a shelter, stay away from trees or open areas where you may be the tallest object.***
- ***Avoid metal! Avoid leaning against vehicles. Get off bicycles and motorcycles. Don't hold on to metal items such golf clubs, fishing rods, tennis rackets or tools.***
- ***Get out of the water, it's a great conductor of electricity. Don't stand in puddles of water, even if wearing rubber boots.***
- ***Move away from a group of people. Stay several yards away from other people. Don't share a bleacher bench or huddle in a group.***

25 million cloud-to-ground lightning strikes occur in the United States each year

Lightning can heat its path five times hotter than the surface of the sun

Lightning Deaths



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SEVERE WEATHER PREPAREDNESS WEEK

SEVERE WEATHER TERMS AND DEFINITIONS

Warning - A weather hazard is imminent or reported and requires **immediate action** to protect life and property.

Watch - Hazardous weather may occur. **Watch for information; review safety plans..**

Severe Thunderstorm - A thunderstorm that produces tornadoes, hail one inch or more in diameter, or winds of 50 knots (58 mph) or more.

Slight Risk (of severe thunderstorms) - Scattered severe thunderstorms possible. Thunderstorms short lived and not widespread. One or two tornadoes possible.

Enhanced Risk (of severe thunderstorms) - Numerous severe storms possible. Thunderstorms are more persistent and widespread. A few tornadoes.

Moderate Risk (of severe thunderstorms) - Widespread severe thunderstorms likely. Thunderstorms are long-lived, widespread and intense. Strong tornadoes. A Tornado Watch will likely be issued.

High Risk (of severe thunderstorms) - Widespread severe storms likely. Thunderstorms are long-lived, widespread and particularly intense. Used for a tornado outbreak or Derecho. A **high risk is rare**, and implies an unusually dangerous situation.

For more on Thunderstorm Risk Categories visit: www.spc.noaa.gov/misc/about.html

American Red Cross

Be Red Cross Ready

Get A Kit. Make A Plan. Be Informed.

Emergency Preparedness Kit for your home

- Food and water for 3 days (1 gallon of water per person per day)
- Flashlights and extra batteries
- Battery-powered or hand-crank radio (NOAA Weather Radio, if possible)
- First aid kit
- Medications (7-day supply) and medical items
- Multi-purpose tool
- Sanitation and personal hygiene items
- Copies of personal documents
- Cell phone contact information
- Extra cash

All Hazards NOAA Weather Radio
NOAA's National Weather Service

Did You Know?

Special needs NOAA Weather Radios designed to meet the needs of the hearing impaired are available.

For more information, visit: http://www.nws.noaa.gov/nwr For Special Needs NOAA Weather Radio information, visit: http://www.nssl.noaa.gov/edu/safety/specialneeds.html

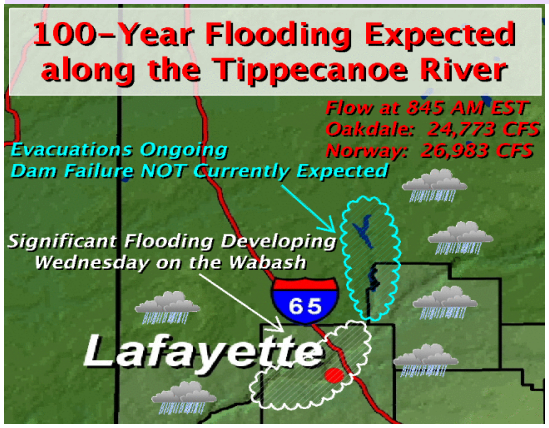
NOAA All Hazards Radio

Keep ahead of the storm by listening to NOAA Weather Radio for the latest weather watches, warnings, and advisories. The Specific Area Message Encoding (SAME) feature of NOAA Weather Radio activates the Emergency Alert System (EAS). EAS is used to provide notification of emergencies to the public.

SEVERE WEATHER PREPAREDNESS WEEK

Graphical Web Briefings

Timing, Impact Details and Forecaster Confidence are available from your NWS Graphical Web Briefings



Graphical web briefings will be available from the National Weather Service websites, as needed, whenever significant, life threatening, hazardous weather or flooding is expected. Short Term Forecasts of hazardous weather may also be depicted graphically as needed.

The Graphical web briefings, when available, can be found at the top of our homepages in the "Top News of the Day" headlines.

HEAT WAVE

How can I be prepared and stay safe?

- Wear light clothes, sunglasses and a hat to protect yourself from the sun.
- Drink plenty of water, eat light meals, do not over exert yourself.
- Stay out of the sun when possible.
- #heatstrokekills, #checkforbaby

Relative Humidity (%)

°F	40	45	50	55	60	65	70	75	80	85	90	95	100
110	136												
108	130	137											
106	124	130	137										
104	119	124	131	137									
102	114	119	124	130	137								
100	109	114	118	124	129	136							
98	105	109	113	117	123	126	134						
96	101	104	108	112	116	121	126	132					
94	97	100	103	106	110	114	119	124	129	135			
92	94	96	99	101	105	108	112	116	121	126	131		
90	91	93	95	97	100	103	106	109	113	117	122	127	132
88	88	89	91	93	95	98	100	103	106	110	113	117	121
86	85	87	88	89	91	93	95	97	100	102	105	108	112
84	83	84	85	86	88	89	90	92	94	96	98	100	103
82	81	82	83	84	84	85	86	88	89	90	91	93	95
80	80	80	81	81	82	82	83	84	84	85	86	86	87

Heat Index (Apparent Temperature)

With Prolonged Exposure and/or Physical Activity
Extreme Danger
Heat stroke or sun stroke highly likely
Danger
Sunstroke, muscle cramps and/or heat exhaustion likely
Extreme Caution
Sunstroke, muscle cramps and/or heat exhaustion likely
Caution
Fatigue possible

Remember?

2012 was on of the hottest and driest summers of record in Indiana!

In 2006, 253 deaths nationwide were from heat

SEVERE WEATHER PREPAREDNESS WEEK

Weather Enthusiasts Wanted!

Volunteers may join the **CoCoRaHS** network, a non-profit community based network of volunteer weather observers to report daily rainfall (hail and snow). See http://www.cocorahs.org

The **PING Project** also is looking for volunteers to report precipitation to the National Severe Storms Laboratory. Reports are plotted on a national map. The data helps NWS Forecasters relate surface observations to what is detected by NWS Doppler radar. See: http://www.nssl.noaa.gov/projects/ping/

Skywarn Storm Spotter training is also conducted each spring to help folks better understand signs for severe weather and report storm information to the National Weather Service. See your local NWS office home page for storm spotter talks in your area.

#Skywarn, #inwx, #nwsind, #indwx, #lmkwx, #pahwx, #nwsiwx, ilwx, #cocorahs

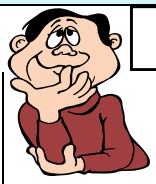
Flood and Flash Flood Information

CHECK OUT THE ADVANCED HYDROLOGIC PREDICTION SERVICE (AHPS)

AHPS is a great tool to check out the latest in river flood information. Information on flood stage, flood impacts and any current flood warnings or statements is available for each station on the map. If you live or work near a river or stream, this page will be of great help to you! **http://water.weather.gov/ahps/**

FLOOD AND FLASH FLOOD SAFETY TIPS #flood

- Monitor NOAA All Hazards Radio or your favorite news source for vital weather information.
- If flooding occurs, get to higher ground, away from areas subject to flooding.
- Avoid areas already flooded and do not attempt to cross flowing streams.
- Do not drive around barriers that warn you the road is flooded. **Some cities and counties will issue a fine to motorists who ignore barriers!**
- Never drive through flooded roadways as road beds may be washed out under flood waters.
- If your vehicle is suddenly caught in rising water, leave it immediately and seek higher ground.
- Do not camp or park your vehicle along streams and washes, if there is a threat of flooding. Be especially cautious at night when it is harder to recognize flood dangers.



FLOOD FACTS

According to FEMA:

The average annual U.S. flood losses from 1996-2005 was more than $2.4 billion.

Hurricanes, winter storms and snow melt are common (but often overlooked) causes of flooding.

In 2008, major spring, summer and fall floods resulted in FEMA Disaster Declarations for most Indiana counties.

March 20-26, 2016 **Flood Safety Week** **www.weather.gov/floodsafety**

CRITICAL NWS FLOOD PRODUCTS

Hydrologic Outlook: This product alerts the public when flood producing rainfall is expected in 36 to 72 hours. During the months of February and March, this product also contains information on the potential for flooding from the spring snow melt.

Flood Watch: A flood or flash flood watch is issued when conditions are favorable for flooding or flash flooding to develop.

Flash Flood Warning: A warning is issued when rapid flooding is imminent. Flash floods quickly develop within six hours of a heavy rainfall event.

Urban/Small Stream Flood Advisory (issued as a Flood Statement): These statements are issued when minor flooding problems are expected, mostly in flood prone urban areas or near small streams that may rise quickly out of their banks. Even minor flooding can cause huge problems if proper precautions are not taken.

Flood Warning: These warnings are issued for river floods or for widespread flooding across a county. River flooding mostly occurs with longer periods of rain which result in slower rises in flood waters and a prolonged flood event.

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UNITED STATES DEPARTMENT OF COMMERCE