SEVERE WEATHER PREPAREDNESS WEEK

National Weather Service

March 13-19, 2011

***Governor Mitch Daniels** has proclaimed March 13th through 19th, 2011 as Severe Weather Preparedness Week in Indiana.* The National Weather Service, 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 *Wednesday, March 16 between 10:15 A.M. and 10:30 A.M. EDT and between 7:30 P.M. and 7:45 P.M. EDT.* If weather postpones the tests, make-up tests are Thursday, March 17 at the same times listed.**

The goal of Severe Weather Preparedness Week is to better educate people about the hazards of severe thunderstorms and tornadoes, and to help everyone be prepared should severe weather occur.

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 will be available during Preparedness Week for interviews.

SPRING 2011

In this issue:

Tornado Safety	2
Indiana's Tornado History	3
Lightning Safety	4
Severe Weather Definitions	5
Graphical Web Briefings	6
Heat Information	6
Volunteers needed!	7
Flood s and Flash Floods	7

OTHER DATES TO NOTE

* **National Flood Safety Preparedness Week**
  March 14-18, 2011
  www.weather.gov/floodsafety
* **National Safe Boating Week**
  May 21-27, 2011
  www.safeboatingcouncil.org
* **Lightning Safety Week**
  June 19-25, 2011
  www.lightningsafety.noaa.gov
* **Winter Weather Preparedness Week for Indiana**
  November 13-19, 2011

Preparedness Week Daily Focus

Sunday, March 13: **Kick-off**; Discuss partners' (NWS, Media, Emergency Response Officials, Homeland Security, Red Cross, Public) roles in Severe Weather

Monday, March 14: **Severe Weather Outlook**; partners' roles at the Outlook stage of an event

Tuesday, March 15: **Watch**; partners' roles at the Watch stage

Wednesday, March 16: **Warning**; everyone's role in Warnings; emphasize statewide tornado drill as time to practice plans.

Thursday, March 17: **Response**; partners' roles in responding to disasters (real-time response)

Friday, March 18: **Recovery**; partners' roles in the recovery process (days/weeks/months) after disaster

Saturday, March 19: **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.

SEVERE WEATHER PREPAREDNESS WEEK

TORNADOES

- **Indiana had 26 tornadoes in 2010, 13 of those on October 26th; the average is 20; the most: 49 in 1990**
- **The average forward speed is 30 mph but varies from 0 to 70 mph. The average tornado width is about 100 yards but can reach one mile wide.**
- **Tornadoes occur year round but are most likely from April to June. Preferred hours are from 3 p.m. to 8 p.m. with a second peak from 12 a.m. to 3 a.m.**

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 from flying debris.

IN SCHOOLS, HOSPITALS, FACTORIES, OR SHOPPING CENTERS:
Go to interior rooms and halls on the lowest floor. Stay away from glass enclosed places or areas with wide-span roofs such as auditoriums and warehouses. Follow the instructions of the facility safety officials.

IN HIGH-RISE BUILDINGS:
Go to interior small rooms or halls. Stay away from exterior walls or glassy areas.

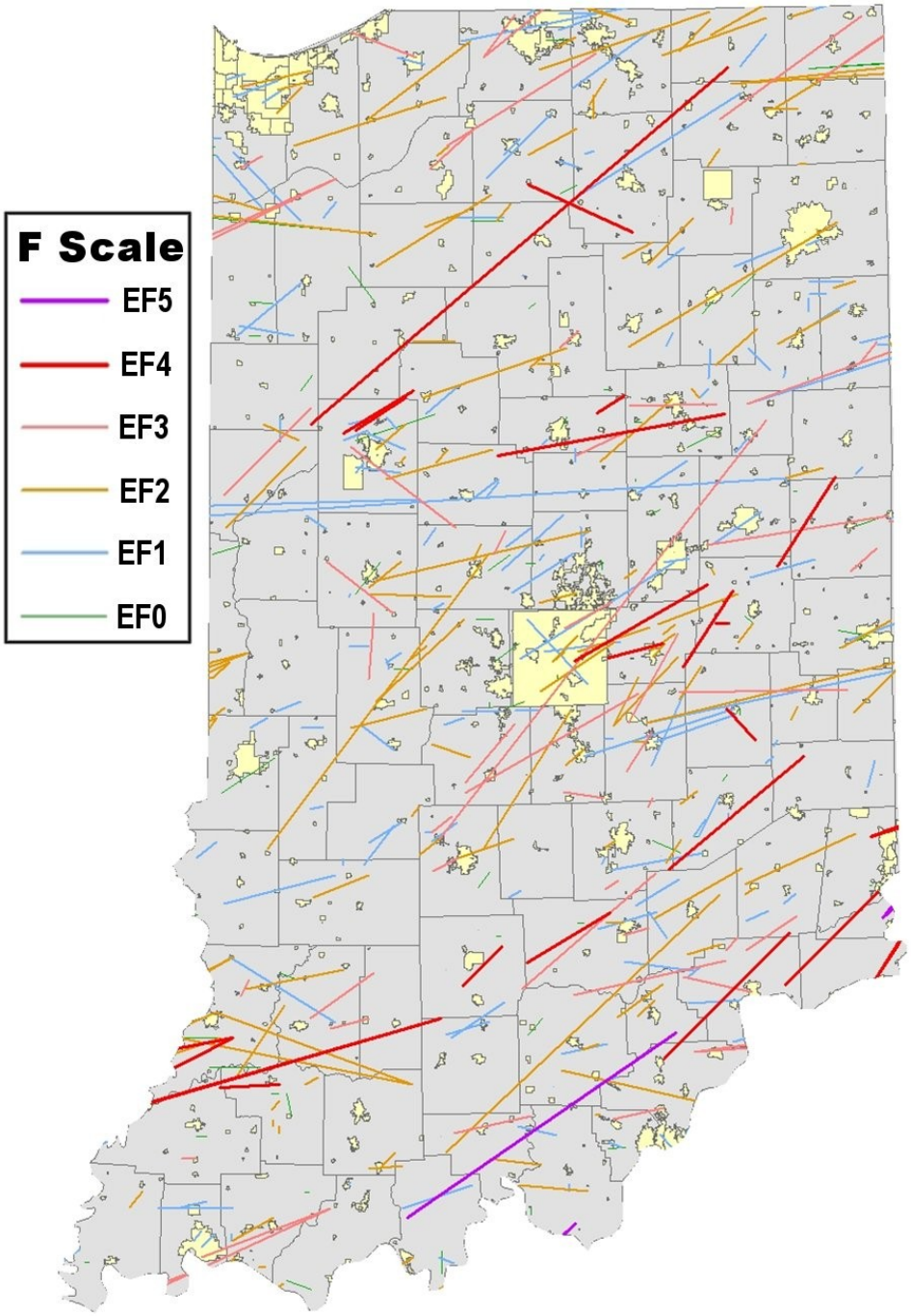
IN CARS OR MOBILE HOMES:
ABANDON THEM IMMEDIATELY!! Most tornado deaths occur in cars and mobile homes. If you are in either of those locations, leave them and go to a substantial structure or designated tornado shelter.

IF NO SUITABLE STRUCTURE IS NEARBY:
Lie flat in the nearest ditch or depression and use your hands to cover your head.

SEVERE WEATHER PREPAREDNESS WEEK

This map depicts historical tornado tracks in the state of Indiana. To see a full color version of this map included in the newsletter, go to our web site at http://www.weather.gov/ind/

Indiana Tornado Tracks 1950-2005



SEVERE WEATHER PREPAREDNESS WEEK

Lightning Safety!

LIGHTNING SAFETY WEEK JUNE 19-25, 2011

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

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SEVERE WEATHER PREPAREDNESS WEEK

SEVERE WEATHER TERMS AND DEFINITIONS

Warning - a particular weather hazard is either imminent or has been reported. A warning indicates the need to **take immediate action** to protect life and property. The type of hazard is reflected in the type of warning (e.g., tornado warning, blizzard warning).

Watch - a particular hazard is possible, or when conditions support its occurrence. A watch is a recommendation for **planning**, **preparation**, and increased **preparedness** (i.e., to be alert for changing weather, listen for further information, and think about what to do if the danger materializes).

Tornado - A violently rotating column of air in contact with the ground and extending from the base of a thunderstorm.

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

Straight-line Winds - Generally, any wind that is not associated with rotation, used mainly to differentiate them from tornadic winds.

Flood - The condition that occurs when water overflows the natural or artificial confines of a stream or other body of water, or accumulates by drainage over low-lying areas.

Flash Flood - A flood that rises and falls quite rapidly, usually as the result of intense rainfall over a relatively small area. Usually a flash flood occurs within 6 hours of a rain event.

Slight Risk (of severe thunderstorms) - Severe thunderstorms are expected to affect between 2 and 5 percent of the area. A slight risk generally implies that severe weather events are expected to be isolated.

Moderate Risk (of severe thunderstorms) - Severe thunderstorms are expected to affect between 5 and 10 percent of the area. A moderate risk indicates the possibility of a significant severe weather episode. A Watch will likely be issued.

High Risk (of severe thunderstorms) - Severe weather is expected to affect more than 10 percent of the area. A **high risk is rare**, and implies an unusually dangerous situation and usually the possibility of a major severe weather outbreak.

Supercell - A thunderstorm with a persistent rotating updraft. Supercells are rare, but are responsible for a remarkably high percentage of severe weather events - especially tornadoes, extremely large hail and damaging straight-line winds.

Squall Line - A solid or nearly solid line or band of active thunderstorms, often yielding heavy rain and strong wind.

Downburst - A strong downdraft resulting in an outward burst of damaging winds on or near the ground. Downburst winds can produce damage similar to a strong tornado. Although usually associated with thunderstorms, downbursts can occur with showers too weak to produce thunder.

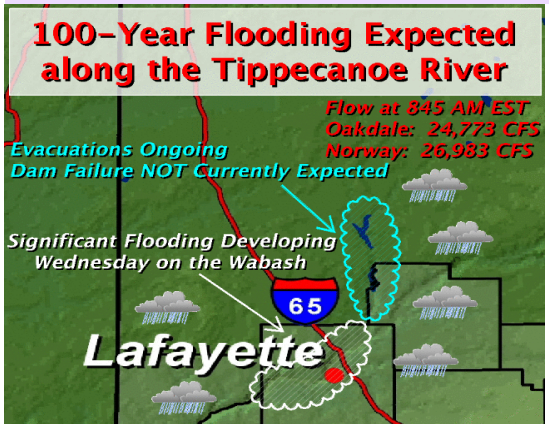
Funnel Cloud - A condensation funnel extending from the base of a towering cumulus or cumulonimbus cloud, associated with a rotating column of air that is ***not*** in contact with the ground (and hence different from a tornado). A condensation funnel is a tornado, *not* a funnel cloud, if either a) it is in contact with the ground or b) a debris cloud or dust whirl is visible beneath it.

Cold-air Funnel - A funnel cloud that can develop from a small shower or thunderstorm when the air aloft is unusually cold (hence the name). On rare occasions, small, relatively weak tornado can occur. These weak tornadoes last only a few minutes and are generally much less violent than other types of tornadoes.

SEVERE WEATHER PREPAREDNESS WEEK

Graphical Web Briefings

Graphical Web Briefings are here!



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 at all times, even if you do not feel thirsty.
- Do not overexert yourself.
- Eat light meals.
- Stay out of the sun when possible.

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

Did you know?

In 2006, according to NWS statistics, **253 fatalities** were attributed to heat!

There were **1513 injuries**.

www.nws.noaa.gov/om/hazstats/sum06.pdf

SEVERE WEATHER PREPAREDNESS WEEK

Weather Enthusiasts Wanted!

Volunteers are wanted to join the **CoCoRaHS** network in Indiana! Anyone can participate. The only requirement is a desire to learn more about how the weather impacts our daily lives. The project website is located at http://www.cocorahs.org

The **CoCoRaHS** network is a non-profit community based network of volunteer observers who measure and record daily amounts of precipitation (rain, hail, and snow). The data collected will help forecasters and resource managers better understand the variable patterns of Indiana's weather.

CoCoRaHS in Indiana is a collaborative effort between the National Weather Service and the Indiana State Climate Office at Purdue University.

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.

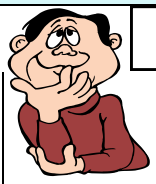
Flood and Flash Flood Information

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

- 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 14-18, 2011 **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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