Alabama Severe Weather Awareness Week 2004

Know Where To Go...

An Annual Educational Effort Sponsored by

National Weather Service

Alabama EMA
Emergency Management Agency

American Red Cross

Mercedes-Benz

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Severe Weather Awareness Week in Alabama
February 23 - 27, 2004

February 23 through February 27, 2004, has been proclaimed Severe Weather Awareness Week in Alabama by Governor Bob Riley. This special week is a time for all Alabamians to learn and/or review the proper safety precautions necessary for protecting your life during deadly weather.

Throughout the week, the National Weather Service, Alabama Emergency Management Agency, and American Red Cross Chapters in Alabama will be conducting educational activities to help people learn how to prevent injuries and deaths from tornadoes, damaging winds, flash floods, lightning, and hail. Media outlets are asked to promote this week through articles, stories, and interviews to acquaint people with severe weather dangers and the proper safety precautions necessary for survival.

This booklet details material on severe weather and ways to prepare against it. Tornadoes, damaging winds, flash floods, lightning, and hail ALL pose great danger to Alabama. Weather-related disasters do occur annually from these phenomena. After nearly every disaster, the story is the same; people survive tornadoes because they know what to do! By taking a few minutes to learn or review severe weather safety rules and procedures, you could save your life or the life of a friend or family member.

A statewide tornado drill will be conducted by the National Weather Service and Alabama Emergency Management Agency on Wednesday, February 25th. The purpose of this drill is to give Alabamians an opportunity to determine if they can adequately receive a tornado watch or warning and to practice the actions necessary for protecting their lives and others in the event of a real tornado. We encourage everyone's participation, including media, in the drill to make it a meaningful practice. The drill will be postponed to Friday, February 27th if bad weather should occur on Wednesday the 25th. Alabama's statewide drill is conducted jointly with a number of other southeastern states.

The warning system continues to improve. Storms are better detected with a network of Doppler radars. An Emergency Alert System (EAS) has accelerated the distribution of warnings. A expanded NOAA Weather Radio network now lets nearly everyone to be within range of direct weather broadcasts. But all of these efforts will fail if you do not know what to do and where to go! The need to react quickly and have a plan of action when severe weather materializes is essential. The National Weather Service, the Alabama Emergency Management Agency, and the American Red Cross urge you to participate in the statewide drill and take time during the week to review, update, or create your preparedness plan.

Contents

Cover Description

The front cover photo was taken from Cherokee County of a tornado in DeKalb County on April 25, 2003 by John Hendrickson. The back cover photo is the Palm Sunday tornado taken by Jeff Formby on March 27, 1994. The front and back covers were designed by Darone Jones. Inside designs and arrangement were done by Michael Scotten and Darone Jones. The 30th Anniversary of the "Super Outbreak" article was written by Krissy Hurley.

Messages from the National Weather Service and Alabama Emergency Management Agency

The southeastern United States, including Alabama, is one of the most active weather regions in the world. Several severe weather episodes strike the state each year, some of which have deadly results. Technology such as Doppler weather radar and more effective communications such as Emergency Alert System and the Internet have greatly improved our ability to provide early warnings to Alabama residents. Powerful technology and early warnings cannot save lives unless people are prepared, stay informed, and know how to react during severe weather.

That's what this week is all about - time to learn, time to review, time to get ready! With Alabama in such an active weather region, it is not IF we will have more devastating tornadoes, it's simply WHEN!!

Kenneth E. Graham, Meteorologist-in-Charge
National Weather Service, Birmingham

The Alabama Emergency Management Agency (AEMA) joins Governor Bob Riley, local EMAs, the National Weather Service, American Red Cross, and Alabama Department of Education each year in the campaign to educate people in our state about severe weather. Each year we face the threat of natural disasters caused by severe weather. Alabama weather history records loss of life and millions of dollars in property damage caused by severe weather. This is why severe weather awareness is so important. Our goal during this week and beyond is to encourage everyone to learn how you and your family can prepare for severe weather. Discuss preparing for emergencies with your family. We encourage you to make a family preparedness plan and exercise it like you would a home fire drill. Planning ahead could save your life.

Bruce Baughman
Director, AEMA, Clanton

Recognizing Our Partners

In recognition of their commitment to public service and safety, the National Weather Service extends a special thanks to those contributing to the 2004 edition of Severe Weather Awareness Week in Alabama:

American Red Cross

Mercedes-Benz

Alabama SKYWARN Foundation, Inc.

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Severe Weather Awareness Week in Alabama, an annual public awareness campaign to draw attention to severe weather preparedness, is 29 years old. Begun by the National Weather Service following the April 3rd and 4th, 1974, super-outbreak of tornadoes, this week has been observed each year as part of a continuing commitment to improve public education and severe weather awareness. The National Weather Service has traditionally led this week, but additional partners have joined the public service effort in order to improve and expand the effort to reach as many Alabamians with this important information.

In recognition of their commitment to public service and safety, the National Weather Service extends a special thanks to our partners whose contributions to the 2004 edition of Severe Weather Awareness Week in Alabama have made this booklet possible.

The 30th Anniversary of the "Super Outbreak"

April 3rd, 1974 will be a night that most Alabamians will never forget. Catastrophic death and destruction occurred on this night as eight tornadoes, including four violent ones, swept through the northern half of the state. A highly unstable environment caused 148 tornadoes to strike in just 24 hours on April 3rd and 4th over 13 states. This "Super Outbreak" resulted in 335 deaths and over 6,000 injuries across the nation.

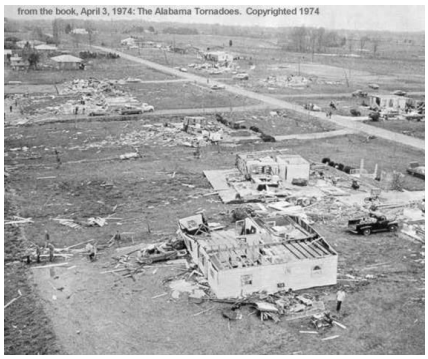
Alabama was one of the hardest hit states during this tornado outbreak. Eighty-six people were killed which accounted for 25% of the fatalities across the country during this 24 hour period. The first violent tornado touched down near the Mount Moriah community around 6:25 pm CDT. This F5 tornado rapidly moved northeast through Lawrence, Morgan, Limestone, and Madison counties for 85 continuous miles. Devastated areas included western Moulton (Lawrence), Tanner (Limestone), Harvest (Madison), and Hazel Green (Madison). A second violent tornado, rated as an F4, began in southwestern Limestone County roughly 40 minutes after the first storm. Amazingly, this second tornado, which was 20 miles in length, never deviated more than two miles from the first tornado's track. Many communities in Limestone County were hit back to back in less than one hour which resulted in many rescue efforts being halted. Over half of the 86 fatalities in the state occurred during these two tornadoes.

Later during the night, another storm developed to the southwest of the destruction in North Alabama. At 8:50 pm CDT, an F5 tornado touched down in extreme rural Mississippi, but quickly crossed state lines into Lamar County. This tornado, which quite possibly is one of the most intense tornadoes to ever strike Alabama, went through the small town of Guin in Marion County leaving nothing left in its path. The tornado then went through the William B. Bankhead National Forest in Winston County leveling tens of thousands of trees. The path left from the downed trees could be seen using satellite photography. This tornado caused 30 deaths and over 300 injuries.

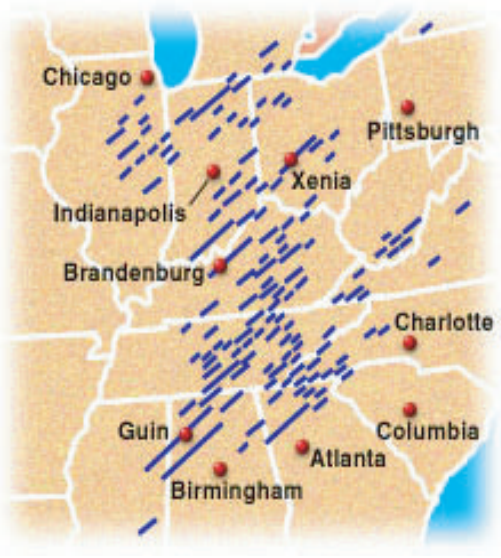
Other areas across North and Central Alabama were devastated that fateful night. Remembering severe weather events like the "Super Outbreak" should remind us how important safety and awareness can be during situations which call for protective actions. Severe weather awareness can be the key to survival and the prevention of repeating history.

THE 1974 TORNADO OUTBREAK

WORST IN U.S. HISTORY



Massive F5 tornado rips across Xenia, Ohio, April 3, 1974 (photo by Fred Stewart)



Graphic by Chad Palmer

Preparation Needed to Survive Severe Weather

Basic severe weather preparedness plans must include:

1) *A thorough knowledge of safety rules*
2) *Selection and designation of the best shelter that you have*
3) *A reliable method of receiving warning information*
4) *Proper instructions for every person to follow when a watch or a warning is issued or if threatening weather should develop*
5) *Drills to test and practice the plan*

Preparing for severe weather is the theme of Severe Weather Awareness Week, so how do we go about it? Preparedness plans come in all sizes as dictated by individual and collective needs, but it always comes down to the individual. Do you know the basic safety rules? Would your children know what to do if home alone? Are plans ready to move elderly or disabled people to shelter quickly? What is your best source for obtaining warning information?

Your local Emergency Management Agency, the National Weather Service, or your local Red Cross Chapter can help you with your planning. Severe weather safety brochures and safety films are available upon request.

rules of the game

Watch and Warning

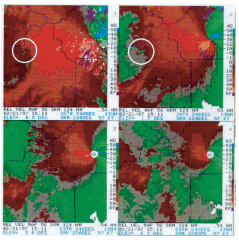
A **Watch** means that ***conditions are favorable*** for severe thunderstorms or tornado development. This is the time to prepare. You should keep alert by listening to radio, television or weather radio for the latest weather information. Know where your children are. Be aware of where you will go and what you will do if a severe thunderstorm or a tornado threatens.

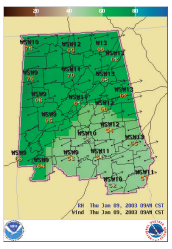
A **Warning** means a severe thunderstorm or tornado ***has been sighted or indicated*** by radar. People in the path of the storm should take immediate life saving actions.

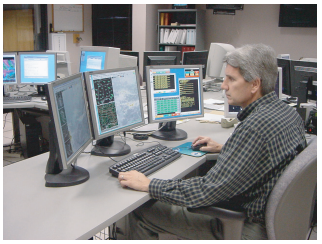
The National Weather Service has issued a Tornado Warning for...

The primary mission of the National Weather Service is to warn of impending hazardous weather. Storm spotters, radar, and satellite reports all help, but severe weather can and does develop without being detected. Advance warning time is often only a few minutes and may be only a few seconds.

Fortunately, the warning system continues to get better. Improvements in Doppler radars and computer systems have helped to detect weather phenomena over small areas in shorter periods of time. The Emergency Alert System (EAS) has sped up the distribution of warnings. An improved NOAA Weather Radio network has allowed nearly everyone to receive the most current weather broadcasts. But all of these efforts will fail if you do not know what to do or where to go! Everyone needs the knowledge to react quickly and a plan of action when severe weather materializes.







Preparedness is the key in dealing with any weather hazard!

Thunderstorms in Alabama

Thunderstorms are a common occurrence in Alabama. Although they can strike at any time, thunderstorms are more frequent during the warm season in the spring, summer, and early fall months. Tornadoes, lightning, damaging winds, hail, and flooding are the main hazards from thunderstorms.

The best defense against thunderstorms is to stay inside a substantial building. Thunderstorms do not usually last for a long time and will generally pass in less than an hour. When thunderstorms are expected, be sure to pick up loose objects around your home or business. Small items can become deadly missiles in strong wind, and flying debris can cause serious damage to other property.

Severe Thunderstorm Criteria

Wind at or above 58 mph

Penny Size Hail (3/4 of an inch in diameter or larger)

Severe Thunderstorms

A severe thunderstorm is defined as a thunderstorm producing winds at or above 58 mph, and/or penny size hail (3/4 of an inch in diameter) or larger. Severe thunderstorm winds can gust to more than 80 mph, overturning trailers, unroofing homes, and toppling trees and power lines. While penny size hail denotes a severe thunderstorm, hail as large as grapefruit has occurred. The danger of serious injury or death from hail is not hard to imagine when you consider that a good-sized hailstone may fall at speeds reaching 110 mph.

Severe thunderstorms can strike any time of year and are most frequent in the spring months of March, April, and May. Alabama also has a "secondary" severe weather season in November and early December. Severe thunderstorms that develop on a summer day are usually isolated. However, some of the most dangerous and intense lightning may occur with summer thunderstorms. This is a fact well worth our attention since summer is the time of the year when outdoor activities are at a maximum.

Lightning

EVERY THUNDERSTORM contains this potential killer. It does not matter if the thunderstorm is a huge severe storm or a typical summer afternoon storm. In a thunderstorm, that electrical charge, which may reach 100 million volts, is always present as it searches for the path of least resistance to complete the circuit from the cloud. It might strike you, an isolated tree, or an object in the open. Keep in mind that you do not have to be standing directly beneath a cloud to be hit. Lightning can strike under clear skies as long as the parent thunderstorm cloud is nearby.

Lightning has been called "the under-rated killer," and rightfully so since it does not usually get as much headline attention compared to other dangerous weather phenomena. Nationally, 100 deaths and 500 injuries on average occur in the United States as a result of lightning strikes. In a typical year, lightning will strike the U.S. over 21 million times and will claim more victims than tornadoes or hurricanes.

Anyone outdoors is particularly vulnerable to lightning. Every person, group, or school involved in outdoor activities should have a plan that can be activated when lightning is in the area to keep people safe. Take time to learn lightning safety rules. That quick dash out in the open with a thunderstorm in the area may unnecessarily expose you to the possibility of being struck. Is it worth the risk?

The 30/30 Safety Lightning Rule could save your life!

The first '30' means that you need to take cover if you hear thunder within 30 seconds of the seeing the lightning flash.

The second '30' means that you should wait at least 30 minutes after the last lightning flash or thunder clap in order to resume normal outdoor activities (the "all clear" signal)

Lightning Safety

- **Get indoors in a strong sturdy building!**

Motor vehicles provide good shelter from lightning as well.

- **Avoid using the phone except for emergencies and stay away from windows.**

- **Avoid being in or near high places, open fields, isolated trees, unprotected gazebos, rain or picnic shelters, baseball dugouts, towers, flagpoles, light poles, bleachers, metal fences, convertible vehicles, golfcarts, motorcycles, scooters, and lawn mowers.**

- **Move away from bodies of water.**

- **Stay away from metallic objects such as fences, clotheslines, or pipes.**

- **In a forest, seek shelter in a low area under a thick growth of small trees.**

- **In open areas, go to a low place such as a ravine or valley. Be alert for flash floods.**

- **If you feel your hair stand on end, lightning may be about to strike you. Crouch down low, but do not lie flat on the ground.**

Remember, there is no truth to the old myth that "lightning never strikes twice in the same place."

Damaging Winds & Hail

Straight-line damaging winds, not to be confused with tornadoes, do occur in some thunderstorms each year in Alabama. These winds may down trees and power lines, overturn mobile homes, and cause damage to well-built structures.

It is important to know that all wind damage is not caused by tornadoes. Reports immediately after a severe weather event usually attribute significant damage to a tornado. But frequently, strong straight-line winds are responsible for damage equivalent to that of a weak to strong tornado. In fact, these wind events are more common than tornadoes in Alabama. In a typical year, Alabama is likely to experience 10 to 20 times as many straight line wind events as tornado events.

Downbursts

Another form of non-tornadic damaging winds from thunderstorms are downbursts. A downburst refers to a very small area of rapidly descending air beneath a thunderstorm that strikes the ground, producing isolated areas of significant damage. Wind speeds in downbursts can exceed 100 mph and may be accompanied by a loud roar, often mistakenly associated only with tornadoes. They mainly occur during the summer months in a few afternoon thunderstorms. The combination of warm moist air near the surface and dry air at the mid levels of the atmosphere support downbursts in thunderstorms.

Since downbursts develop quickly in only a select few thunderstorms, they are very difficult to detect and give weather forecasters and the general public little or no advance notice.

Even the National Weather Service is not immune from damaging winds.

Although hail forms in every thunderstorm that develops, it only reaches the ground if the storm is strong enough and the atmospheric conditions are favorable. If hail reaches the ground, it usually occurs in spring-time thunderstorms when the atmosphere is cooler, especially at the mid and high levels. Hail may take on many different sizes and shapes from some hailstones resembling flat-shaped pennies to some that may have the appearance of softballs.

Large hail can be very dangerous. It can cause damage to objects such as motor vehicles, structures, and trees. Bodily injuries or even deaths can occur if people are caught outdoors when large hail occurs.

Tornadoes

Tornadoes are violently rotating columns of air that descend from thunderstorm clouds to come in contact with the ground. They typically develop when the following atmospheric ingredients come together:

- a supply of warm, humid air near the surface

- cool, dry air flowing from the west or southwest at the mid and high levels of the atmosphere

- a nearby low pressure system to help lift the air and create thunderstorms

- strong atmospheric winds that turn with height

Most tornadoes in Alabama occur in the spring months of March, April, and May between noon and 8 pm. A secondary tornado season occurs in the fall, typically during November and early December. However, tornadoes have occurred in every hour of each day and night, so no time is completely free from tornadoes.

Tornadoes have wind speeds that vary from as little as 60 miles an hour to speeds approaching 300 mph. They move with the thunderstorms that produces them with forward motions varying from nearly stationary to 70 mph. Most thunderstorms producing tornadoes travel from the southwest toward the northeast.

Remember, tornadoes form quickly! You may have only a few seconds to react and find shelter. When a tornado threatens, your immediate action can save your life! Know where to go!

Tornado Safety Rules

In general, get as low as you can. A basement below ground level or at least the lowest floor of a building offers the greatest safety. Put as many walls between yourself and the outside as possible. Avoid windows at all cost!

In schools, nursing homes, hospitals, factories, and shopping centers:

Go to a pre-designated shelter area. Basements are the best, but interior hallways on the lowest floor usually offer protection. Close all doors to the hallway for greater protection.

In homes or small buildings:

Go to the basement or a small interior room such as a closet, a bathroom, or an interior hall on the lowest level. If available, get under something sturdy like a heavy table. Protect yourself from flying debris with pillows, heavy coats, blankets, or quilts. Use bicycle or motorcycle helmets, if available, to protect your head.

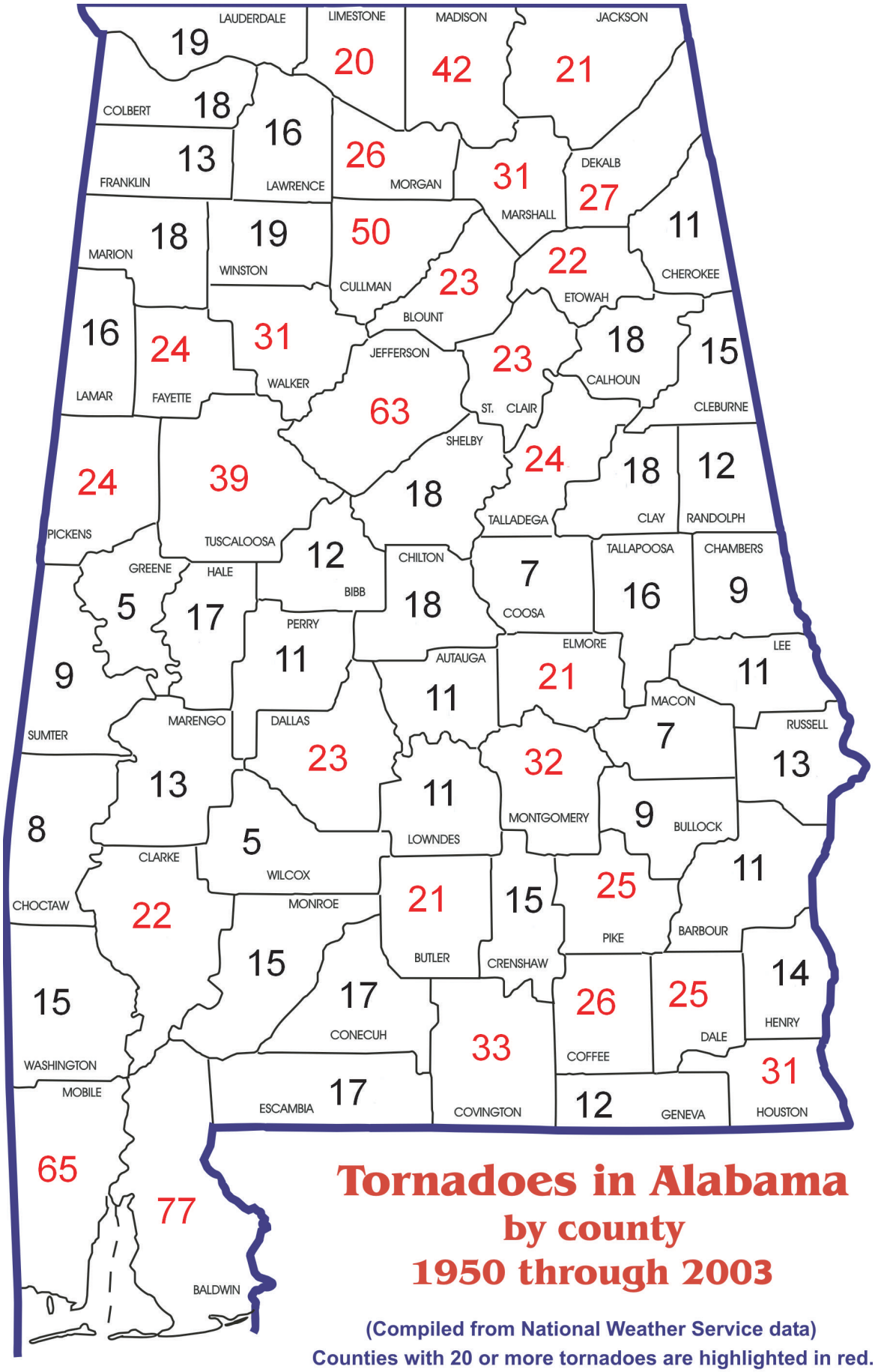
In mobile homes or vehicles:

Leave them and go to a strong building. If there is no shelter nearby, get into the nearest ditch or depression and lie flat with your hands shielding your head.

Stay away from windows! Do not bother opening or closing them. It will not protect the structure anyway. You will waste time and put yourself and possibly others at greater risk. Use those valuable seconds to find a place of safety.

Stay away from doors, windows, and outside walls. Protect your head!

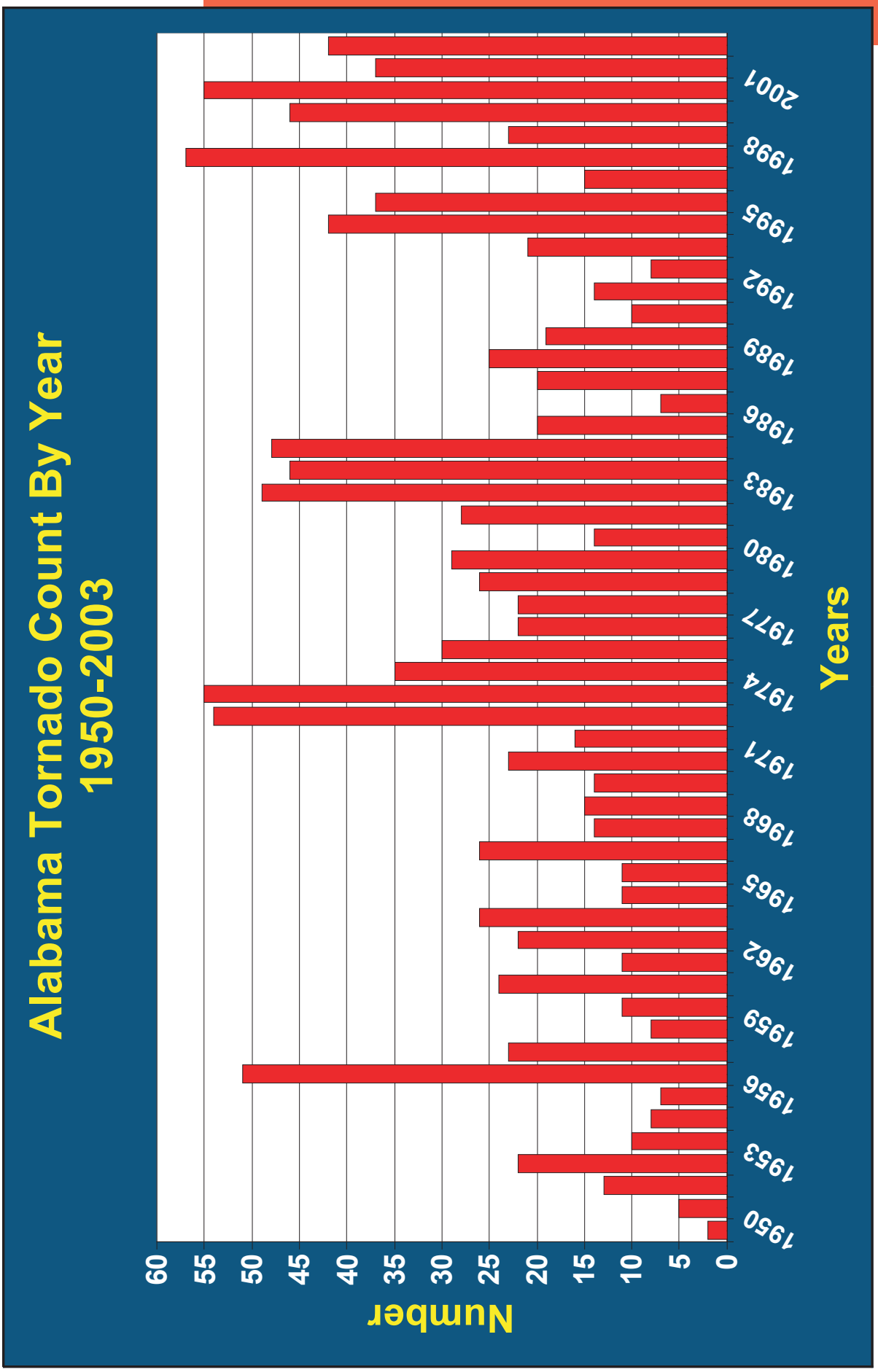
Tornadoes By County in Alabama



Tornadoes in Alabama
by county
1950 through 2003

(Compiled from National Weather Service data)
Counties with 20 or more tornadoes are highlighted in red.

Tornadoes By Year



Flooding

Flash Flood

Flash flooding can occur almost anywhere at any time in Alabama. It can occur within a few minutes or hours of excessive rainfall or a dam or levee failure. Flash floods can roll boulders, tear out trees, destroy buildings and bridges, and scour out new channels. Rapidly rising water can reach heights of 30 feet or more. Furthermore, flash flood-producing rains can also trigger catastrophic mudslides. You may not always have a warning of these sudden and deadly floods.

River Flood

Flooding along rivers is a natural and inevitable part of life. Some floods occur seasonally when winter or spring rains fill river basins with too much water too quickly. Torrential rains from decaying hurricanes or tropical systems can also produce major or record river flooding.

Urban/Area Flood

As land is converted from fields or woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization increases runoff two to six times over what would occur on natural terrain. During periods of urban flooding, streets can become swift-moving rivers, while basements can become death traps as they fill with water.

TURN AROUND DON'T DROWN

www.srh.weather.gov

Flood Safety & Products

Flood Safety Rules

* During periods of heavy rain, stay away from streambeds, drainage ditches, and culverts.

* Never drive your car into water of unknown depths. Most flash flood deaths occur when people drive their vehicles into flood waters. Never go around barricades.

* Water runs off streets and parking lots very rapidly causing natural and man-made drainage systems to overflow with rushing flood waters. These flood waters carry rocks, trees, trash, and other debris that can be deadly to someone in their path.

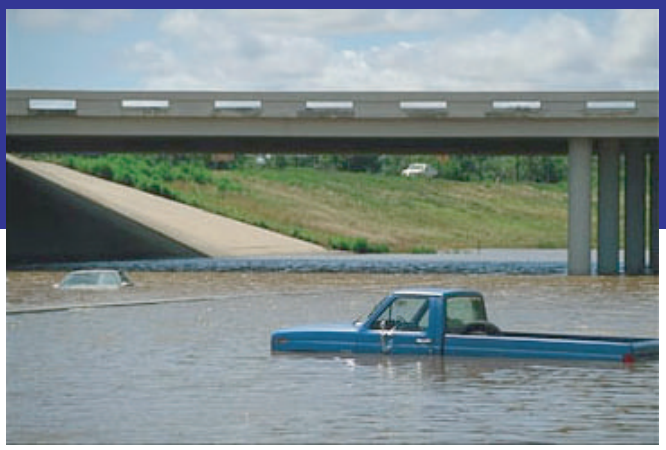
* Move to high ground should flooding threaten your area. Heavy rain should be a signal to alert you to possible flooding danger. If you live or work in a flood-prone area, near streams, or drainage ditches, remain alert during periods of heavy rain.

* Stay out of flooded areas. The water may still be rising and is usually swift. A rapidly flowing stream or ditch can sweep you off your feet or even sweep your car downstream. Children are especially vulnerable and should not be allowed to play or walk in flowing water.

* Be especially cautious at night, when it is harder to recognize flood dangers.

* If your vehicle stalls, abandon it and immediately seek higher ground. Flood waters may rise very quickly and could cover the vehicle or sweep it away.

Water is a very powerful force and should never be underestimated!



Types of Flood Watches and Warnings Issued by the National Weather Service

Watches

FLASH FLOOD WATCHES are issued when conditions are favorable for flash flooding (sudden short-term flooding that lasts less than 6 hours).

FLOOD WATCHES are issued when conditions are favorable for long-duraton (longer than 6 hours) flooding. This includes river flooding.

Warnings

FLASH FLOOD WARNINGS are issued when flooding occurs or is imminent within 6 hours of the event.

FLOOD WARNINGS are issued when flooding occurs or is imminent and is expected to occur more than 6 hours.

RIVER FLOOD WARNINGS are issued when flooding is occurring or expected to occur near streams and rivers.

Storm Spotters

Technology improves our warning system from the technology of Doppler radar used in detection of severe weather to the rapid distribution of information through the Emergency Alert System (EAS). All play a critical role in severe weather, but an important element in the warning system is the storm spotter.

Storm spotters come from all walks of life, joined by their interest in weather and their interest in serving their community. Spotters are associated with SKYWARN, a volunteer program developed many years ago by the National Weather Service (NWS) to train and organize spotters in every community. Spotters may be more formally organized around local emergency management agencies or other local groups such as amateur radio clubs who work directly with the spotters in their local communities. Public service personnel from fire departments, rescue squads, and law enforcement agencies are also active in severe storm spotting activities.

The Alabama SKYWARN Foundation, Inc., working with the State of Alabama, has provided a means to recognize storm spotters in Alabama through an Alabama distinctive license plate.

The license plate similar to the design above is available through each county registration office. The first step in producing the license plate is through a commitment to purchase. As soon as 250 people commit to produce the plate and make an advance payment of the $50 fee, the plate will be produced by the State of Alabama. Those who committed to the purchase can exchange their current license plate for the storm spotter license plate.

Funds generated by the purchase of these distinctive plates will go to the Alabama SKYWARN Foundation, Inc., to underwrite additional activities to increase and improve severe weather awareness and safety across our great state.

Additional information about the license plate can be found on the Alabama SKYWARN Foundation web site at www.alabamaskywarn.org

Spotters are critical to the warning process because they provide timely information on the actual weather that's happening at the ground, which is known as ground truth. Satellite imagery and Doppler radar provide NWS meteorologists with large amounts of information about the storm and its structure, but high tech equipment does not provide the specifics about the weather actually occurring at the ground. This is where spotters become the eyes and ears for the community.

Storm spotters go through training provided by the NWS to gain an understanding of storm structure. The training includes the climatology of Alabama tornadoes, details on the structure of the most severe thunderstorms known as supercells, exposure to visual clues often present prior to and during tornado events, and information on tornado safety and reporting procedures.

Spotters typically work in small groups organized around a county, or in some cases, around a grouping of several counties. Amateur radio operators compose one of the largest groups of spotters in Alabama because of their ability to communicate using their radios even when power and conventional communication methods are knocked out. National Weather Service offices have established working relationships with the amateur radio community which includes radio equipment in NWS offices to communicate with spotters in the field. This communication network often provides rapid reports of severe weather as it occurs, as happened on December 16th, 2000, with the Tuscaloosa tornado. Also, it can provide essential communication with emergency management agencies when severe weather does happen.

Volunteer storm spotters are one of the most valuable assets in a warning system that is a complex interaction of various systems. Additional information on storm spotter activities can be found on the Internet at the NWS web sites (see page 15) and at www.alert-alabama.org.

Voice of the National Weather Service

Weather information direct from the National Weather Service

NOAA Weather Radio

NOAA Weather Radio, the voice of the National Weather Service, provides updated weather information continuously, 24 hours a day, every day of the year.

To receive the broadcasts originating from the National Weather Service, a special radio capable of receiving signals in the Very High Frequency (VHF) public service band is required. In Alabama, frequencies from 162.400 to 162.550 megahertz are used for NOAA Weather Radio broadcasts. Alabama is served by 26 transmitters which places approximately 95 percent of the people in the state within range of a weather radio transmitter.

National Weather Service personnel prepare weather information that is broadcast in three to five minute cycles. This includes watches and warnings, area forecasts for the next seven days, current weather conditions, climatic data, and other weather information.

Location	Frequency (Mhz)
Arab	162.525
Auburn	162.525
Bethlehem, FL	162.450
Birmingham	162.550
Blakely, GA	162.525
Columbus, GA	162.400
Cullman	162.450
Demopolis	162.475
Dozier	162.550
Florence	162.475
Fort Payne	162.500
Huntsville	162.400
Jackson	162.500
La Grange, GA	162.450
Meridian, MS	162.550
Mobile	162.550
Montgomery	162.400
Mt. Cheaha	162.475
Oneonta	162.425
Pensacola, FL	162.400
Selma	162.450
Sumerville, GA	162.450
Texasville	162.475
Tuscaloosa	162.400
Winchester, TN	162.525
Winfield	162.525

NOAA Weather Radio is useful any time, but becomes even more important during severe weather. During threatening weather, normal broadcasts are interrupted, and the focus is shifted to the local severe weather threat. Watches, warnings, and statements are given the highest priority and are frequently updated.

NOAA Weather Radio is also a major part of the Emergency Alert System (EAS) that speeds critical weather warning information through commercial broadcast outlets. In an emergency, each NOAA Weather Radio station will transmit a warning alarm tone signal followed by information on the emergency situation. This signal is capable of activating specially designed receivers by increasing the volume or producing a visual and/or audible alarm. Not all weather band receivers have this capability, but all radios that receive NOAA Weather Radio can receive the emergency broadcasts. The warning alarm device is tested each Wednesday, usually between 11 am and noon, weather permitting.

A feature available in the newest weather radio receivers called SAME, Specific Area Message Encoding, allows them to be programmed for the reception of watch and warning messages for certain counties in your area.

Media are urged to use NOAA Weather Radio and may freely rebroadcast broadcasts.

Safety After the Storm

Safety does not stop after the storm has passed. Everyone should be aware of the many dangers that might exist after bad weather has moved out of the area.

Remain calm and try to deal with immediate problems such as care for injured people until professional help can arrive.

Do not light matches or turn on electrical switches if you suspect damage to your home or business.

Carefully check for damage around your home or business. If you smell gas or suspect a leak, turn off the main gas valve, open windows, and get everyone out of the structure quickly.

Stay away from downed power lines. Do not attempt to touch or move them. Keep children and pets away from downed power lines. Report downed wires to your local power company.

People should know where to find the main electrical fuse or breaker box, water service main, and natural gas meters. Learn how and when to turn these utilities off. Have a professional turn the utility service back on.

Clean up or rope off dangerous areas such as near broken glass.

Trees and tree limbs may be weakened and could fall unexpectedly, so use caution when walking through areas where high wind or tornadoes have passed through.

Locate your emergency supply kit with essential documents and materials for taking care of yourself after a storm damages your home.

Avoid using candles. While inexpensive, candles are open flames that can start fires, and in a disaster, response agencies are already overloaded.

Be sure not to forget about caring for pets after a disaster has occurred.

2003 - An Active and Costly Year

Warnings Issued for Alabama
by the National Weather Service
During 2003:

Tornado Warnings 317
Severe Thunderstorm Warnings 959
Flash Flood Warnings 265
Total 1541

The Annual Average Number of Warnings
(1994-2003):

Tornado Warnings 188
Severe Thunderstorm Warnings 829
Flash Flood Warnings 112
Total 1129

During the time period of April 7th, 2003, through May 18th, 2003, the National Weather Service offices across the state issued:

Tornado Warnings 210
Severe Thunderstorm Warnings 407
Flash Flood Warnings 131
Total 748

Percentage of warnings issued April 7th, 2003, through May 18th, 2003, compared to the total number of warnings issued in 2003:

Tornado Warnings 66%
Severe Thunderstorm Warnings 42%
Flash Flood Warnings 49%
Total 49%

Percentage of warnings issued April 7th, 2003, through May 18th, 2003, compared to the annual average number of warnings issued 1994-2003:

Tornado Warnings 112%
Severe Thunderstorm Warnings 49%
Flash Flood Warnings 117%
Total 66%

The following information was provided by the Alabama Emergency Management Agency.

The grand total of applications for Individual Federal Assistance in the state of Alabama last year due to catastrophic weather-related events was...

36,930

The grand total of funding awarded for Individual Federal Assistance in the state of Alabama last year due to catastrophic weather-related events was...

$49,963,019.97

The following information was gathered from two of the major insurance companies in Alabama. The dollar amounts below are estimated based on insured percentages given by these companies. The amounts are solely based on what these insurance companies classify as the five major weather-related events across Alabama in 2003.

The estimated dollar amount claimed under auto policies in the state of Alabama last year due to the five major weather-related events was...

$45,200,000

The estimated dollar amount claimed under homeowner policies in the state of Alabama last year due to the five major weather related events was...

$211,000,000

Estimated Grand Total:

$306,163,020

Contacts for More Information

This booklet contains materials useful during the Severe Weather Awareness Week campaign and at other times too. You are invited to contact the National Weather Service, state and county emergency management agencies, and local Red Cross chapters for interviews and answers to your questions. National Weather Service personnel are available for severe weather awareness programs to civic and industrial organizations, schools, hospitals, and others interested in severe weather safety. Representatives of your local emergency management agency and the nearby Red Cross chapter may also be available for assistance. For more information contact the National Weather Service office serving your area, your county or state emergency management agency, or a nearby Red Cross chapter.

Each county in Alabama is served by a National Weather Service office as identified here:

For people in Autauga, Barbour, Bibb, Blount, Bullock, Calhoun, Chambers, Cherokee, Chilton, Clay, Cleburne, Coosa, Dallas, Elmore, Etowah, Fayette, Greene, Hale, Jefferson, Lamar, Lee, Lowndes, Macon, Marengo, Marion, Montgomery, Perry, Pickens, Pike, Randolph, Russell, St. Clair, Shelby, Sumter, Talladega, Tallapoosa, Tuscaloosa, Walker, and Winston counties, contact:

Jason B. Wright or Ken Graham in Birmingham (BHM) at 205-664-3010
www.srh.noaa.gov/bmx

For people in Colbert, Cullman, Dekalb, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marshall, and Morgan counties, contact:

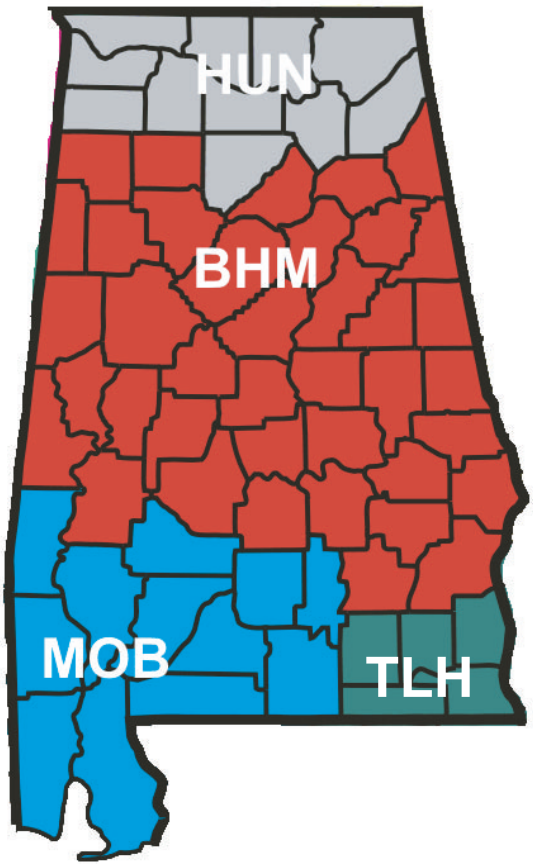
Tim Troutman or John Gordon in Huntsville (HUN) at 256-890-8503
www.srh.noaa.gov/hun

For people in Baldwin, Butler, Choctaw, Clarke, Conecuh, Covington, Crenshaw, Escambia, Mobile, Monroe, Washington, and Wilcox counties, contact:

Gary Beeler or Randall McKee in Mobile (MOB) at 334-633-6443
www.srh.noaa.gov/mob

For people in Coffee, Dale, Geneva, Henry, and Houston counties, contact:

Bob Goree or Paul Duval in Tallahassee, FL (TLH) at 850-942-8999
www.srh.noaa.gov/tlh



For the Alabama Emergency Management Agency, contact Scott Adcock in Clanton at 205-280-2247.

For the American Red Cross, contact your local chapter or Cindy Bahri in Birmingham at 205-458-8263.

For the Alabama Department of Education, contact the Information & Communication Office in Montgomery at 334-242-9950.

Tornadoes By Month and Year