

Chatham County residents should always be prepared for severe weather events. Here are a few ways to stay informed and to keep yourself and your family safe:

Family Preparedness...

Families should be prepared for any type of hazard that could affect their area. The best way to do this is to develop a family disaster plan. Here are a few steps your family should consider when developing a family disaster plan:

- Gather information about hazards in your community
- Meet with your family to create a plan
- Implement your plan
- Practice and maintain your plan



National Oceanic and Atmospheric Administration (NOAA) Weather Radio...

NOAA weather radio is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby National Weather Service office. NOAA weather radio broadcasts National Weather Service watches, warnings, forecasts, and other hazard information 24 hours a day.

Some weather radios are equipped with a special tone feature, which can sound an alert and give you immediate information about a life threatening situation. During an emergency, the National Weather Service will interrupt routine weather radio programming and send out a special tone that activates weather radios in the warning area. Recently, a radio tone was introduced. The Specific Area Message Encoding (SAME) tone alert can be set up to only sound for your county. The tones you receive, and alerts you only receive in your county.



In Georgia, there are 23 transmitters broadcasting throughout the state. Seven frequencies are reserved for NOAA weather radio on the public service band. These frequencies range between 162.400 megahertz and 162.550 megahertz. Broadcast range is approximately 40 miles, but the effective range depends on terrain, quality of the receiver, and indoor/outdoor antennas. The corresponding frequency for the Savannah area is 162.400 MHz.

Thunderstorm Safety...

In Georgia, the biggest threat from severe thunderstorms is damaging straight line winds and large hail. Straight line winds can reach speeds excess of 100 mph and produce damage similar to a tornado. These winds occur, on average, 19 days per year in Georgia. These events have occurred in every month of the year, but are most common in the spring and summer months, peaking in the



month of July. Large hail affects the state an average of 7 days per year with April being the peak month. Generally, most large hail is between 1 and 2 inches in diameter in Georgia.

The factors used by the National Weather Service to determine if a thunderstorm is severe are winds greater than 57 mph and hail greater than 3/4 inch in diameter or about the size of a penny. Typically, a severe thunderstorm lasts about 30 minutes and occurs in the afternoon and evening hours during the spring and summer months. However, severe weather is possible any time of the day and any time of the year.

A special class of severe thunderstorms called “Supercells” is particularly violent and can last for several hours. Tornadoes are often produced from these supercell thunderstorms.



Thunderstorm Wind damage near Columbus, GA on July 24, 2004
courtesy of Joshua McKinney

So what can you do to protect yourself and your family?

The best thing to do is to have a plan of action in place before threatening weather develops. Know what the difference between a **watch** and **warning** are. **A Severe Thunderstorm Watch** means conditions are favorable for severe thunderstorms to develop, but there is not an imminent threat. **A Severe Thunderstorm Warning** means a severe thunderstorm has been detected and an imminent threat to life and property has developed.

Know your area so you can track storms, listen to a weather radio, local TV or radio reports. Make sure you have battery backup. Monitor any forecasts if threatening weather is possible and you are planning outdoor activities.

If severe weather is imminent, and you are inside, move to shelter such as a basement or an interior room on the lowest floor of the building. Remember, it's best to put as many walls between you and the outside as possible.

If you are caught outside, try to seek shelter in a sturdy structure.

Lightning Safety...

Lightning is one of the leading causes of weather deaths in the United States. In Georgia, preliminary 2005 data shows lightning killed 2 people and injured 28. In 2004, 5 people were killed and 17 injured; 1 person was killed and 7 were injured in 2003; 2 people were killed and 7 were injured by lightning in 2002; and 18 people were injured and 1 person was killed by lightning in 2001. Most lightning deaths occur in the summer months usually in the afternoon and evening hours. Also, most deaths occur when people are caught outside during a storm.

Lightning results from the buildup and release of electrical energy between positive and negative charges between the earth and a thunderstorm. A single lightning bolt can be as hot as 50,000 degrees Fahrenheit - hotter even than the surface of the sun. This rapid heating and cooling of the air creates a shock wave which we hear as thunder. Lightning will usually strike the highest object in area. This includes trees, antennas, a boat on a lake, or a person standing in a field.

So, what should you do to protect yourself?

If you are outside, get inside a building or vehicle. If you can hear thunder, you are already at risk.



*Practice the **30/30 safety rule**. If you see lightning and cannot count to 30 before hearing thunder, go indoors. Stay indoors an additional 30 minutes after hearing the last clap of thunder.*

If you cannot find shelter, do not stand under a tree or remain in an open place when lightning is near. Avoid open water, as well as tractors, bicycles, motorcycles, or golf carts. These will not provide protection, and may actually attract lightning.

Enclosed vehicles are generally safe, if you avoid contact with metal surfaces.

If you are in a forest, seek shelter in a low area under a thick growth of small trees.

*If you are outside, and feel your hair stand on end, this indicates lightning is about to strike. Drop to your knees and roll forward to the balls of your feet. Place your hands on your knees and tuck your head down. **Do not lie flat on the ground.***

If you are boating or swimming, get to land as quickly as possible.

If you are inside, don't use a telephone or other electrical equipment unless in an emergency.

Do not take a bath or shower during a thunderstorm.

Tornado Safety...

In Georgia, the average number of days with reported tornadoes is six. Tornadoes have been reported throughout the year, but are most likely to occur from March to May. Tornadoes are also most likely in the mid afternoon to early evening time frame, but can occur any time of the day or night. Thirty-seven percent of all tornadoes are classified as strong or violent, and these tornadoes are most likely to occur in the month of April. In Georgia, tornadoes are often hard to see as they are wrapped in areas of rain and hail. Hilly terrain can also limit your ability to see a tornado.

Tornadoes are violently rotating columns of air, extending from the thunderstorm that is in contact with the ground. Tornadoes can vary in shape, size and intensity. Most tornadoes are weak, lasting a few minutes and producing winds of less than 100 mph. However, a few tornadoes are strong or even violent. These tornadoes last from 20 minutes to over an hour and can produce winds of between 100 and 300 mph.

So, what can you do to protect yourself and your family?

The best thing to do is to have a plan of action in place before threatening weather develops. Know what the difference is between a watch and warning are. **A Tornado Watch** means conditions are favorable for tornadoes to develop, but there is not an imminent threat. **A Tornado Warning** means a tornado has been detected and an imminent threat to life and property has developed.

Know your area so you can track storms, listen to a weather radio, local TV or radio reports. Make sure you have battery backup. Monitor area forecasts to know if threatening weather is possible when you are planning outdoor activities.

If a tornado is imminent and you are in a home or building, move to a pre-designated shelter on the lowest floor, such as a basement, or a small interior room closet, bathroom or hallway - and get under a sturdy piece of furniture. Remember to always put as many walls as possible between you and the outside.

Stay away from windows.

Get out of automobiles. Do not try to outrun a tornado in your car. If you are caught outside or in a vehicle lie flat in a nearby ditch or depression, but be aware of possible flooding, and cover your head with your hands.

Mobile homes offer little protection from tornadoes. You should leave a mobile home and go the lowest floor of sturdy nearby building or a storm shelter.

Flood Preparedness...



Tornado in Fayette County on January 2 2006

Many people do not know this, but flooding kills more people than any other weather hazard. The majority of deaths from flooding occur when people become trapped in automobiles that stall while driving through flooded areas. Nearly half of all flood fatalities are vehicle related. Flooding is usually divided into two categories. These categories are flash flooding and river flooding. Both of these can cause death, injury, and property destruction.

Flash floods are usually caused by slow moving thunderstorms or thunderstorms that move over the same area one after the other. These floods usually occur within six hours of heavy rainfall and are usually more life threatening as a result. Areas most prone to floods are mountainous streams and rivers, urban areas, low-lying areas, storm drains, and culverts.

River flooding is caused by the gradual increase in the water level of a river or creek. These floods usually occur seasonally with general rains or with heavy rainfall from tropical systems. A good example of this flooding is the flooding that affected South Georgia after Tropical Storm Alberto in 1994.



So, what can you do to protect yourself and your family?

Know what to listen for. A *Flood Watch* or a *Flash Flood Watch* means that conditions have been detected that could lead to flooding of a certain area. A *River Flood Warning* or a *Flash Flood Warning* means that flooding is imminent and you should take action immediately. You can monitor the weather radio or any local radio or TV station to get the latest information.

If flooding occurs, get to higher ground. Get out of areas subject to flooding such as canyons, dips, low spots, and washes.

Avoid areas already flooding, especially if the water is fast flowing. Do not attempt to cross flowing streams. Road beds may be washed out due to the flooding. Never try to cross flooded roadways.

If your vehicle is suddenly caught in rising water, leave it immediately and seek higher ground.

Be especially cautious at night when it is harder to see flood dangers.

Storm Spotter Information...

Skywarn is a program the National Weather Service uses to improve severe storm warnings. Trained volunteers serve as storm spotters. These spotters pass on vital "ground truth" information to forecasters during severe weather events. They are the eyes and ears not only for forecasters, but for the community as a whole.

Skywarn volunteers come from all walks of life, and generally have two things in common - an interest in weather as well as an interest in serving their community. Certain organizations often involved in Skywarn include:

Emergency Management

Law Enforcement

Fire Department and Rescue Squads

Amateur Radio Groups



Any organization or person can become a Skywarn spotter, but they must first complete the necessary training from the National Weather Service. These training classes are offered periodically during the period of January to March 15th. Each class will be done in a grouping of two to four counties. Anyone interested in attending a spotter training class is asked to contact their counties emergency management office to get a schedule of upcoming classes. Sometimes, depending on demand, a second season of classes is offered between September and November.

There will be a Basic Storm Spotter Training held in Savannah on Thursday, February 5th and an Advance Storm Spotter Training on March 5th. Anyone interested in reserving a seat for these classes should contact Dustin Hetzel at CEMA at (912) 201-4500.

Best of luck as you prepare yourselves and your families for an exciting and safe 2009!