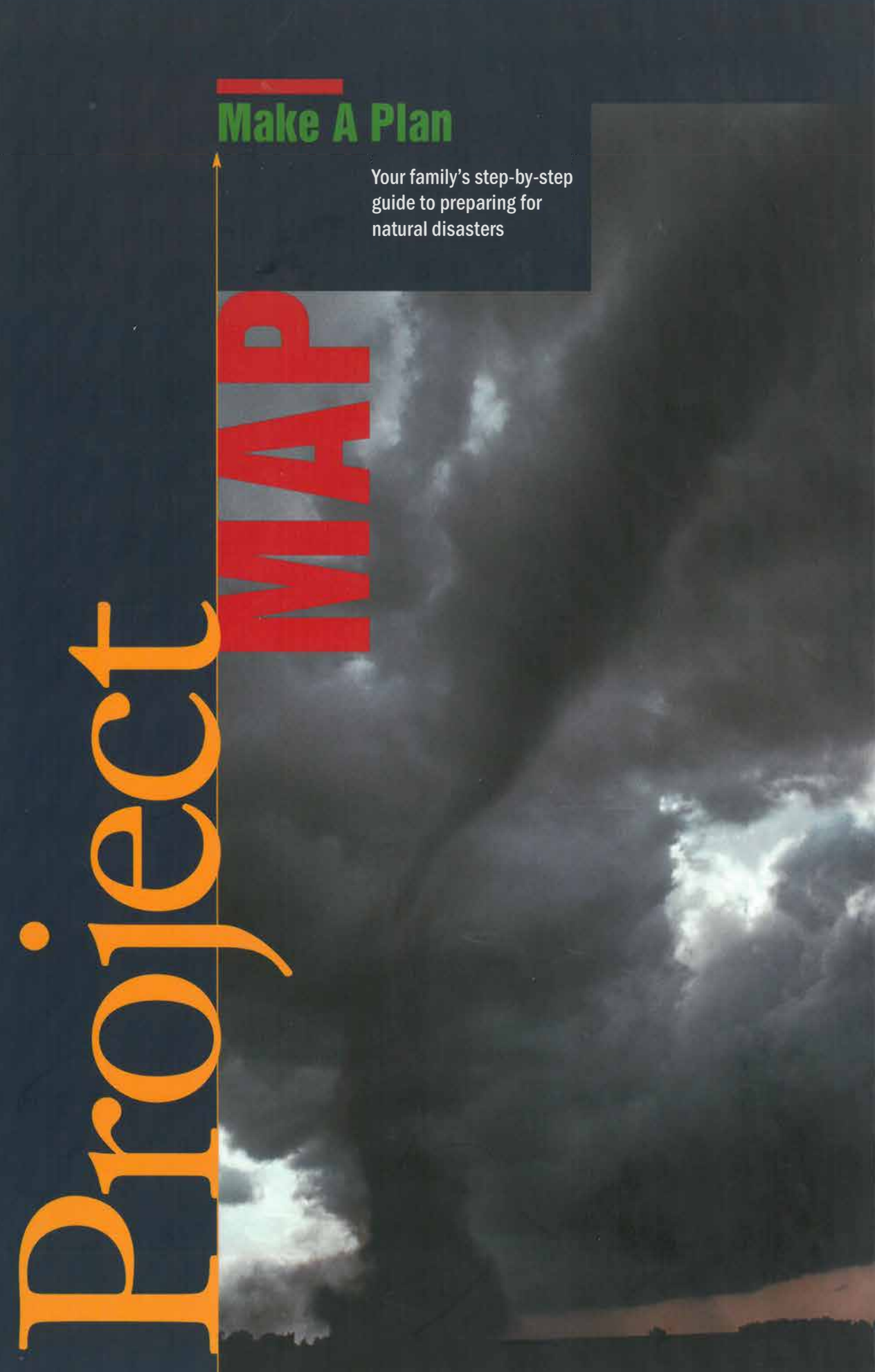

Project MAP
Make A Plan
Your family's step-by-step guide to preparing for natural disasters

Storm flooding in a neighborhood in Huntington Beach, California, 1983.

The information in this guide will be useful to you, whether you live in a house, a condominium or an apartment. Developed by the Independent Insurance Agents of America, this guide will help you get started on **Project MAP: Make A Plan.** By planning now, before a major natural disaster occurs, you can help minimize the amount of damage it can cause.

An apartment complex suffers tremendous damage when Hurricane Andrew strikes the Florida coast in 1992.

No matter where you live, your family is vulnerable to a natural disaster. It could be a house fire, hurricane, earthquake, flood or simply thunder and lightning. Whatever form it takes, a natural disaster can be costly—physically, psychologically and financially.

A mother and daughter watch as a fire destroys their home in Villa Park, California, 1993.

INTRODUCTION

"We have no home," whispered a resident of Beebe, Arkansas, as she described the damage caused by a tornado that ripped through the town on Thursday, January 21, 1999. Seven people were killed, 35 were injured, towns were sliced in half and buildings were leveled—all in a matter of minutes, as at least 38 tornadoes cut paths through the state.

Although all natural disasters are alarming, perhaps none are more so than tornadoes. They strike randomly—often with scant warning—giving their would-be victims little or no time to prepare.

That's why it is vital to plan for a natural disaster now, when the weather is clear and still. If you take time up front, you can help your family members protect themselves and minimize damage to your home and possessions.

Today we have sophisticated scientific techniques that enable us to predict the development and path of natural disasters. Yet despite these technological advancements, natural disasters are phenomena that remain largely beyond human control. Hurricanes, tornadoes, earthquakes and other disasters are unpredictable, deadly and unstoppable. We must be prepared to deal with their effects.

Nine of the 10 most costly natural disasters—including Hurricanes Iniki, Fran, Opal, Georges and Andrew, as well as the devastating Northridge, California earthquake—occurred during the 1990s. With many more people moving to risky areas, such as coastal communities and forestland, the potential for damage to property and loss of human life is actually increasing.

In 1998, tornadoes killed 129 people, the most in 25 years. And, due to increases in property values, building and construction costs, insured losses from natural disasters have increased dramatically over the past decade, underscoring the need for proper insurance coverage. In fact, experts now predict that should a major earthquake or hurricane hit a metropolitan area, such as Miami or Los Angeles, damage claims could exceed $120 billion.

An integral part of planning for a natural disaster is to become familiar with what your insurance policies cover and what they do not. Your independent insurance agent is there to ensure that you have adequate protection and to answer any questions you may have.

Overleaf: *Florida residents prepare for the arrival of Hurricane Andrew in 1992.*

How this guide is organized

This guide is designed as an easy-to-use reference to help you and your family plan for, get through and recover after a natural disaster. Familiarize yourself now with the table of contents so you

will know what's here and where to find it. Remember, when a disaster occurs, there won't be time to rummage through the house looking for supplies. The first section, **Project MAP: Make A Plan,** contains activities that you can begin working on now. We've included a section on how to involve your children in disaster preparedness. There are also sections outlining each of the major natural disasters that occurs in the United States. Find out which are most likely to happen in your area and study them carefully so that you are prepared. There are also tips on what to do after a disaster occurs. Finally, we've included a detailed chapter on insurance and what you need to think about when it comes to coverage for your family, home and car. It's important to know ahead of time what your basic homeowners and personal auto policies cover and what they do not. For example, damage caused by flood or wind may not be covered under your standard homeowners insurance policy.

Project MAP: MAKE A PLAN

Planning for a disaster is an activity that can and should involve every member of your family, including the children. When a disaster occurs, emotions run high. There is chaos and fear. Having a well thought out and often-rehearsed plan in place will help you and your family members remain calm and in control.

Many activities in this guide are designed to be done together as a family. Experts say children do best in a structured environment with routine built into their daily lives. Knowing what to do if a natural disaster occurs can help them feel more secure and less confused. When they become familiar with the terms and activities associated with hurricanes, tornadoes and other natural disasters, they'll be less fearful and better able to take care of themselves.

After a major natural disaster, emergency organizations will be on the scene. But depending on the nature and severity of the situation, it may take them hours or even days to get to you. The critical question is: Will your family be prepared to cope until help arrives?

The most important thing you can do for yourself and your family is to implement **Project MAP: Make A Plan.** Read through this guide. Study the maps. Become familiar with the types of natural disasters most likely to occur in your area. Complete the action steps, one by one. At first, you may think it's an overwhelming exercise—you have enough to do! But in the end, you'll feel a sense of accomplishment and peace of mind knowing that you're prepared for what may come.

Getting started

A good way to begin your planning process is to gather as much information as you can. There's a lot out there. You can take advantage of the work that has already been done.

- Contact your city's or town's planning and emergency assistance organizations. Ask them for information about disaster planning.
- Find out how you and your neighbors would be informed about an imminent disaster.
- Ask if evacuation routes have been established.
- Contact your children's school or day care center to learn about the emergency plans they have in place.
- If a family member is in an elder care facility, check to see what emergency procedures they will follow.
- Take a First Aid/CPR class from the American Red Cross.
- If you have pets, have a contingency plan in place. Many emergency shelters won't accept them.

Draw a floor plan of your home

Since you may need to evacuate your house or apartment at a moment's notice, you'll need to know how to get out quickly and safely. Although you may think you know the exit routes from each room or each floor of the house, some doors, windows or hallways could be blocked. Going through this exercise of drawing a floor plan will help you react more quickly and calmly if the real thing occurs. Perhaps you can use the evacuation routes posted on the back of hotel doors as a model for your own floor plan.

- Show the location of all doors, windows and stairways.
- Mark two escape routes from each room.
- Ensure that people with disabilities can evacuate.
- Make sure small children and pets can be located and rescued. Your local fire department may have window decals that direct rescuers to children's rooms and alert them that there are pets in the house.
- Go through each section of this guide and locate the safe spots in your home for each type of disaster. For example, which room will it be safest for you to go to in the event of a tornado?
- Indicate the locations of gas and water valves and electrical switches in case they have to be turned off.
- Identify the locations of large pieces of furniture. These could topple over during an earthquake.
- Indicate the locations of your disaster supplies kit, fire extinguishers and first aid kits.
- Include the locations of garages, patios, porches, driveways, stairways and elevators.
- Pick a meeting place outside your house where everyone can congregate if you have to evacuate. Mark it clearly on the floor plan.

A pocket full of help

Check the inside back cover of this guide. The pocket contains blank floor plans and stickers that you can use when developing your evacuation routes.

Prepare a home inventory

If you were the victim of a major natural disaster and suddenly found yourself with nothing left, would you remember everything that you had lost? When is the last time you counted the number of CDs you own or took stock of the current value of your TV and video equipment, not to mention your clothing, jewelry and other personal effects?

Too often, we forget about personal valuables that are stored in closets or drawers. An inventory will help you remember what you have so you can accurately document your losses to your insurance company. For example, your insurance company will be less likely to dispute the value of your antique teapot collection if you have photographs, sales receipts and other documentation to prove it.

- Make a detailed written or videotaped inventory of your property and household possessions. Take a video camera and go through every room, taping and describing what you see. For valuable items, note when and where you purchased them and how much you paid for them. Include the serial numbers of major appliances.
- Don't forget to inventory the garage, attic, basement and the exterior of your house, including landscaping and fencing.
- Update the inventory yearly.
- Keep your inventory, insurance policies and other important documents in a safe-deposit box and keep a duplicate set in a fire- and water-proof container at home. Include important documents such as wills, deeds, titles, stocks, bonds, certificates of deposit, passports, bank account numbers, credit card numbers, income tax returns, birth certificates and so on.

Develop a communication plan

The number one concern during a natural disaster is the safety and well-being of your family. During the chaos and uncertainty of a natural disaster, it's most important for all family members to know how to find each other or get in touch with one another if separated. By setting up these procedures now, you'll have important phone numbers at your fingertips when you need them.

Teach your children how and when to call 911.

Prepare a list of emergency day and evening telephone numbers and post them near all phones. We've provided a handy chart (see inside back cover) that you can post in the house. Keep a copy of these numbers in your car and at work. Make sure your children know how to dial these numbers. You'll want to include the following:

- police and fire departments
- poison control center
- family physicians
- local disaster relief organizations, such as the American Red Cross
- one out-of-town and one local family member or friend to contact if you are separated from other family members during a disaster
- your place of business
- at least one of your neighbors
- your children's school or day-care center
- your pet's veterinarian
- your independent insurance agent

Handy phone chart

The pocket located on the inside back cover of this guide includes a phone chart you can post for easy access to important phone numbers.

Plan now for evacuation

In the event of a major natural disaster, your family may be told to leave your home. Because hundreds of other people will also be evacuating, you should have a firm plan in mind.

Pick a place outside the neighborhood where your family can meet. It could be a school, church or synagogue, a recreation center or some other public building.

Decide now where you will stay if you must evacuate your home. It could be a friend's home or a motel.

Plan for the safe evacuation of elderly or disabled family members.

Have a contingency plan for your pet's care.

Identify more than one evacuation route from your home, if possible. If there is a major catastrophe, roads may be crowded or flooded. Bridges or causeways may be under water. Know your options.

Helpful Hint

If you live in a hurricane-prone area, purchase sheets of plywood to cover your home's windows and store them in your garage or shed. If you wait until a storm is imminent, your local hardware store may be sold out.

Storm-proof your home

Keep your home in tip-top shape to protect it against the damage of heavy winds, snow, ice or rain. Make sure your roof, windows and doors are not in need of major repair.

Position cribs/beds away from windows or tall furniture that could slide or topple.

Bolt bookcases and other tall pieces of furniture to the wall.

Power generators are often used during power outages. If you own one, make sure it is well maintained and that all family members know how to operate it properly.

If you live in a mobile home, make sure it is securely tied down.

If you own a boat, make sure it is securely moored.

If there is a fire hydrant near your home, make sure it is clear of debris and can easily be located by the fire department.

Remove low branches and dead trees from around your house.

Clear debris from the chimney and gutters.

Assemble a disaster supplies kit

Once a disaster strikes, you won't have the time or opportunity to search or shop for supplies. If you plan ahead, you and family will be better able to cope with the situation and to take care of yourselves. Begin now to assemble your disaster supplies kit using one or more easy-to-carry containers, such as large covered trash cans or duffel bags. Plan on having enough supplies to get you and your family through at least 72 hours. Before you start packing, identify the storage dates of all materials and post them on the lid of the container so you can replace outdated items when necessary.

Food and Water

canned food and other nonperishable food supplies	at least three gallons of water per person
manual can opener	

First Aid Kit

a first aid manual	tongue blades (2)
sterile adhesive bandages in assorted sizes	petroleum jelly or other lubricant
2- and 4-inch sterile gauze pads (6 of each)	safety pins
hypoallergenic adhesive tape	cleansing agent/soap
triangular bandages (3)	latex gloves (2 pairs)
2- and 3-inch sterile roller bandages (3 rolls of each)	sunscreen
scissors	bug spray/repellant
tweezers	aspirin or non-aspirin pain reliever
needle	anti-diarrhea medication
moistened towelettes	antacid
antiseptic	syrup of ipecac (to induce vomiting if advised by the Poison Control Center)
antibiotic lotion	laxative
thermometer	activated charcoal (to use if advised by the Poison Control Center)

Tools/Supplies

battery-powered radio	tool kit, pliers, wrench, screwdrivers
flashlight, batteries	

Clothing/Bedding

water-repellent, protective clothing	sturdy shoes or boots
raingear	sleeping bags
work gloves	

Special Items

floor plans	supplies for infants: formula, diapers, bottles, powdered milk, medications
your emergency telephone list	
duplicate copies of your insurance policies, home inventory and other important family documents	supplies needed for elderly or disabled family members, including medications and reading or hearing aids
	pet food

Emergency Car Kit

flashlight and extra batteries	shovel, flares
blanket	tire repair kit and pump
booster cables	cell phone adapter and extra battery
first aid kit	your emergency telephone list
bottled water and nonperishable food supplies, such as granola bars, raisins, crackers	windshield scraper and brush
	disposable camera to document damage claims

Take care of your pets

Our pets are part of our families and they depend on us for their safety and well-being. If you are a pet owner, you should include caring for your pets in your family's disaster plan.

Different disasters require different responses. If one of the responses is evacuation, you should be prepared to evacuate your pet as well. Most emergency shelters don't allow animals, unless they're animals that assist people with disabilities.

Leaving your pet behind could cause it to become injured or lost. And in some cases, a family member—especially a child—could be so concerned that they'd run back into a burning house to rescue a pet. Here are some steps you can take now to help protect your pets.

- Keep the names and phone numbers of local pet-friendly hotels/motels on hand.
- Check with veterinarians' offices and local animal shelters to see if they board in times of emergency.
- Arrange in advance for friends or family members to shelter your pets.
- Make sure all dogs and cats are wearing collars with up-to-date identification.
- Keep a disaster supplies kit for your pet along with the one for your family. Include leashes, harnesses and carriers, medications, food, water, bowls, litter and pan, and a manual can opener.
- Make sure your pets have updated shots. Kennels won't accept animals that haven't been vaccinated.

Are you covered?

When you are preparing your inventory, be aware that most insurance policies limit the amount of reimbursement for loss of valuable items such as jewelry, furs, stamps, coins, silverware and guns. If you have some particularly valuable items in these categories, you may need to purchase additional coverage called a "floater."

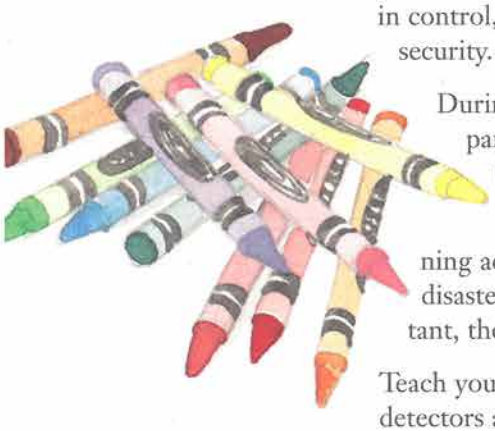
Also, you may be surprised to learn that your homeowners policy may not cover damage caused by floods, earthquakes or windstorms. Take the time now to find out what's insured and what isn't so that you can recover most, if not all, of what you may lose if a major natural disaster occurs.

Though the insurance section of this guide contains general information, we suggest you call your independent insurance agent today for more specific, detailed information about your coverage.

Teaching your children about

NATURAL DISASTERS

Catastrophes are frightening and stressful events for adults and they can be even more so for children. By remaining calm and in control, you can help your children maintain a sense of safety and security.



During a disaster, children fear they'll be separated from their parents, that someone will be injured or killed and that they'll be alone. They're also afraid the event will happen again.

By having your children participate in the disaster planning activities outlined in this guide, including participating in disaster drills, you can help alleviate some of the stress. It's important, though, to acknowledge that your children's fears are real.

Teach your children how to recognize danger signals: what the smoke detectors and fire alarms sound like. Help them to memorize important information, such as their address and phone number. Make sure they know how and when to call 911.

Make it a game

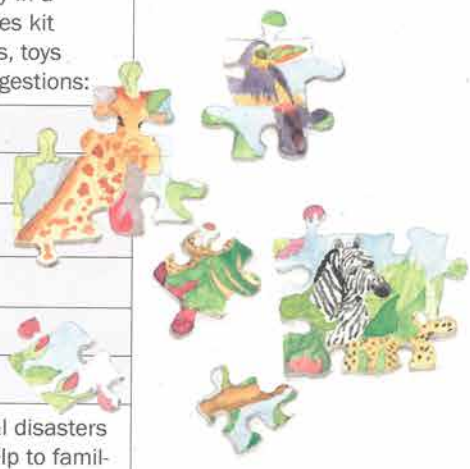
Although disaster preparedness is serious business, make it a fun activity for the family. When putting together a disaster supplies kit or a first aid kit, organize the activity as a treasure hunt. Have the children go with you through the house to locate the required items. Let the children decorate a trash can or box as a treasure chest, in which the found items can be stored.

Kids will enjoy helping you draw a floor plan of the house. Perhaps they can locate pictures of furniture in magazines to cut out and paste to the floor plan. Or they can draw and color the items themselves.

An activity kit for kids

During a disaster, you may have to leave your home for a while to stay in a shelter or a nearby motel. When putting together your disaster supplies kit (see page 9), set aside a duffel bag just for the kids. Fill it with games, toys and candy—things they can share with other kids. Here are a few suggestions:

books	toys
battery-operated CD or tape player	games
favorite CDs or tapes	puzzles
crayons, pencils, markers and lots of paper	deck of cards
	stuffed animals
scissors, glue, yarn or string	blankets or pillows



Your local library has books that explain weather conditions or natural disasters in easy-to-understand language. Reading these with your kids may help to familiarize them with what may happen if a disaster occurs. Your child's teacher may be able to suggest reading materials or other resources that are available. The American Red Cross and the National Fire Protection Association offer free coloring books for children. See the Resources section at the back of this guide for their phone numbers and websites.

Protecting your home BUSINESS

Many entrepreneurs choose to operate their businesses right from their homes. Perhaps you fit into this category and are enjoying the rewards associated with it. But have you ever stopped to think about the risks? What if your home business is severely damaged or destroyed and you don't have adequate insurance coverage? What if you haven't made plans to back-up critical information? In addition to the physical loss, your income may be seriously compromised for weeks or even months. More importantly, the business relationships you've worked diligently to establish and nurture may be weakened. Your customers may have to go elsewhere because you can't meet their needs.

At least 60% of home businesses may not be properly insured. Many entrepreneurs think their home businesses are fully covered under their homeowners policy. The fact is that your homeowners policy offers limited or no protection for your home business.

Will your business survive?

According to the U.S. Small Business Administration, more than 46% of small businesses hit by natural disasters never reopen, and almost 29% of the remaining companies close within two years. Why the high failure rate? Small business experts say many entrepreneurs do not have basic plans to help them prepare for and recover from a disaster. Now is the time to create a disaster response plan for your home business. It's a good idea to upload the plan to your website for easy off-site retrieval. Many of the points outlined on pages 6 through 10 can be applied to your home business. Here are some additional things you should do:

Identify hazards.	Back up all your computer files.
Develop an evacuation plan.	Arrange for emergency staffing, if necessary.
Make arrangements to back up electrical power.	Check your insurance policies to make sure you have adequate protection.
Identify a site for relocation.	Have a plan in place to communicate with your employees, customers and vendors.
Have back-up telecommunications equipment and procedures in place.	
Arrange for building security.	

Project MAP: Make A Plan

If you are a home business owner, apply the disaster preparedness tips in this guide to your business. See the section on preparing for a disaster (page 5) for information on how to put together a disaster supplies kit and a first aid kit. Follow the same procedures in putting together kits for your home business.

Back up your computer operating system and files. Keep the disks with other supplies and software in a water-proof, fire-resistant container. Also, keep a copy in your safe-deposit box or in a safe location outside your home. Update the information often.

If possible, back up all data on an external server.

Take a complete inventory by video-taping or photographing your equipment, supplies and anything related to your business. Make copies of receipts.

Identify an alternate work location.

Use a surge suppresser to protect your computer and the other electrical equipment in your office.

Purchase a generator for back-up power in case electricity or phone service is disrupted.

Talk with your independent insurance agent about the proper insurance coverage.

Are you covered?

Check your homeowners policy. Do you have an incidental business rider or a business owner's policy? If you don't, talk with your independent agent to determine whether you need additional coverage. If you do, make sure you have adequate protection against liability, loss of income and property damage. If you have employees, you may need workers compensation insurance as well.

Ask your independent insurance agent about flood and earthquake insurance.

If you sometimes use your personal vehicle for business or if your home business owns one or more vehicles, your agent can advise you on whether you need additional coverage.

Your Home Business Disaster Supplies Kit

Thanks to today's virtual capabilities, with proper planning you should be able to operate your home business from anywhere. The key is to have the business information you need plus a few office supplies. If necessary, you can rent a computer until your home office is back to normal. Here are some suggestions for your business disaster supplies kit:

addresses, phone numbers, fax numbers and e-mail addresses for all customers, suppliers, subcontractors and co-workers

cell phone

current files

pens and pencils

paper

business stationery, invoices, order forms

blank disks

business checks

duplicate credit cards

petty cash

legal documents

insurance documents

bank account numbers

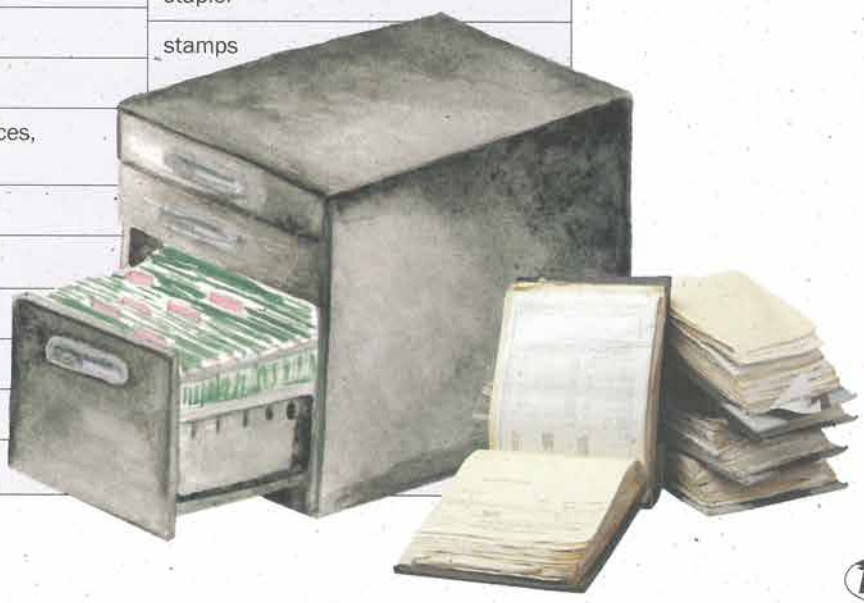
file folders

paper clips

tape

stapler

stamps



Left and bottom: *Damage caused by Hurricane Andrew, Florida, 1992.*

IN HER OWN WORDS

"Everything is washed away. Our road looks like a river with a telephone pole sticking in it."

(In Clendenin, West Virginia, a woman relates the effects of a devastating flood in June 1998.)

Are you COVERED?

There's no way to predict right now whether a natural disaster will ever occur in your neighborhood or, if it did, whether your home would sustain damage. But the purpose of carrying insurance is to prevent a natural disaster from creating a financial one.

Your independent insurance agent has two concerns: to make sure you have adequate insurance coverage and to provide you with prompt, professional, efficient service when you need it.

Immediately following a natural disaster, thousands of claims could be filed at the same time. It's also possible that your insurance agent has been affected by the disaster as well and is dealing with the same communication and transportation problems that you are.

Most major insurance companies will set up temporary claims offices in the area of the catastrophe and will issue toll-free phone numbers for customers to file claims. To obtain these numbers, you may want to check your local newspaper or the Internet, but your independent agent will be the best source of information at this time.

Homeowners Insurance: What it covers and doesn't cover

Your homeowners policy will meet most of your everyday property and liability insurance needs. A typical homeowners policy covers the house itself, other buildings or structures on the premises and

household personal property. It will also protect you if someone is injured on your property.

Check your insurance policy now to become familiar with coverage limits for structure (the house itself, garage and shed) and personal property (contents and personal belongings).

Exclusions

It's important for you to know that most homeowners insurance policies do not cover damage due to floods or earthquakes (see page 18 for a more detailed explanation). In some states, damage from windstorm, mudslide or fallen trees is also excluded or limited. Special insurance is available for those situations and your independent insurance agent will be able to provide you with further information.

Other disaster-related exclusions may include spoiled foods, back-up of sewers or drains, general power failure and loss to your home-based business. If you operate a home business, your homeowners policy provides *extremely limited* coverage for your business losses. For further information on insuring your home business, please see page 15.

Another exclusion that can be costly is called the "Ordinance or Law" exclusion. If current law demands higher-grade or more expensive materials than the ones being replaced, the new materials may not be covered at the full price. For example, if you must replace all the wiring in your home following a fire, and the current building code in your area requires a higher grade of wire, your policy may only cover the cost of replacing the older wiring. You would be responsible for the difference in cost between the old and the new wiring. Adding an endorsement to your policy now could save you money in the long run.

A word about replacement cost vs. actual cash value

There are two methods of determining the value of your property:

- Actual cash value is the replacement cost of the item minus depreciation. For example, a new TV may cost $500. If you purchased yours seven years ago, it might have depreciated 50%. Therefore, if your TV is damaged in a fire today, its actual cash value would be $250.
- Replacement coverage will pay the cost of replacing your TV at today's cost without deducting for depreciation. Even if you purchased your TV seven years ago and a similar new TV would cost $500 today, that's how much you would receive to replace your TV.

You may want to check your policy to see which kind of coverage you currently have. If you want replacement coverage, you can often add it to your policy for an additional cost.

A resident inspects flood damage in Butler, Kentucky, 1997.

Flood Insurance

Most homeowners insurance policies don't cover flood damage. Many flood victims think their flood damage will be covered by federal disaster assistance. This isn't always the case. Before a community is eligible for disaster assistance, it must be declared a federal disaster area. Most floods are too small or local to qualify for federal assistance. In fact, less than 50% of all flooding incidents are declared federal disasters. And even if they do qualify, the assistance comes in the form of small grants or loans. The loans must be repaid with interest, which could cause a financial burden on top of your mortgage or rent payments.

The National Flood Insurance Program was created by Congress in 1968 to help reduce the cost of flood disasters. Through this program, which is administered by the Federal Insurance Administration (part of the Federal Emergency Management Agency), federally backed flood insurance is available in communities that adopt and enforce floodplain management ordinances to reduce future flood damage. Because nearly every community in the United States participates in the program, flood insurance is available even if your flood risk is high or your property has previously been flooded.

Flood insurance is easy to obtain and is the best way to protect yourself before a flood hits. How much does flood insurance cost and what does it cover? The average premium for a flood insurance policy is about $300 a year for approximately $100,000 of coverage. The maximum amount of coverage for a single-family home is $250,000, and $100,000 for the home's contents. Homeowners who live in low- to moderate-risk areas can obtain flood insurance for as little as $100 per year.

A homeowner removes ruined furniture and other debris after a flood in New Richmond, Ohio, 1997.

Talk to your independent insurance agent today about protecting your family, your business and your property with flood insurance. Your agent can research the options and explain what is covered or not covered under a flood insurance policy.

It's important to remember that there is a 30-day waiting period before flood insurance becomes effective; plan ahead so you're not caught without flood insurance when a flood damages your home or business.

Earthquake Insurance

Before an earthquake occurs, it's vital to understand your insurance policy to see what is covered and what is not. Earthquake damage is excluded under most basic homeowners policies. However, for an extra premium, insurers usually offer earthquake coverage as an option.

The 1994 Northridge, California earthquake causes six precast concrete parking garages to partially collapse.

Rates and premiums for earthquake insurance vary widely, and are based on the location, age and structure of your home, its conformity to building codes and other factors. In general, rates are usually higher than you would pay for a homeowners policy because, unlike theft or fire, earthquake losses are widespread and unpredictable.

Auto Insurance

The comprehensive coverage included in your auto insurance policy covers fire damage to your vehicle. It also covers damage caused by natural disasters (earthquakes, hail, hurricanes, floods) unless the vehicle is overturned. Then it's considered a collision. Read your policy carefully to determine if you have adequate coverage. Your independent agent can help with this. Remember, if you use your car for business, you may need extra coverage.

Filing Claims

If there's damage to your home, apartment, condo or car due to a natural disaster, you'll be asked to fill out a claim form—the formal document on which you request benefits to be paid according to the terms of the policy. Be complete and supply as much detail as you can and, of course, be truthful.

Claims are filed with the insurance company that issued your policy. Your agent can help you with your claim and can act as your liaison with the insurance company. When filing your claim, it may be necessary for you to supply documentation. Taking pictures or videotaping the damage will be helpful. The inventory you conducted as part of your disaster planning will be invaluable to you at this time. Please refer back to page 7 to see what should be included in your inventory.

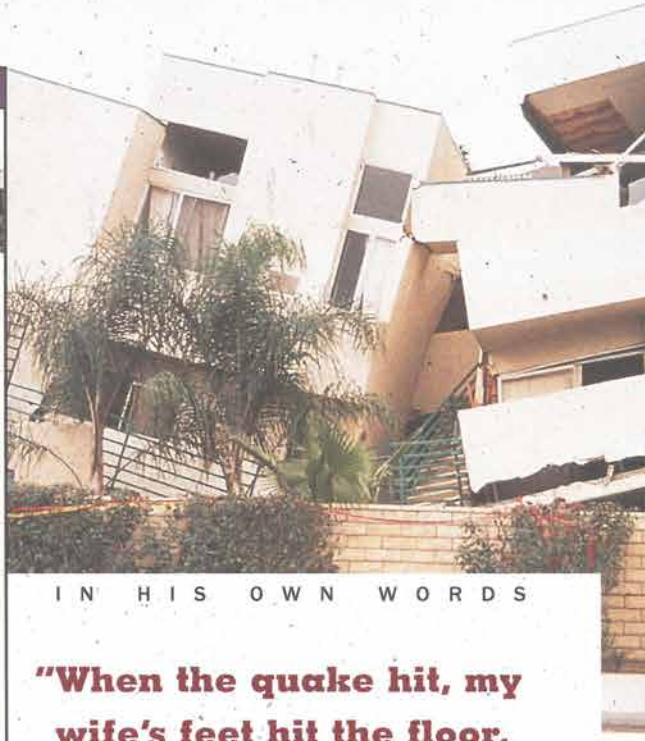
Once your claim reaches the insurance company, it will be handled by an adjuster who investigates your claim and recommends a settlement. Appraisers, lawyers and medical experts may also be called in.

Call your independent insurance agent if you have questions or concerns about your coverage or how to file a claim. He or she is there to get you through the difficult times. But remember, your insurance agent, as well as the company he or she represents, may also have been affected by the same disaster. So be patient if your call is not returned immediately. Many insurance agencies have disaster preparedness plans of their own and will be up and running soon after a disaster hits. When speaking with your agent, ask if his or her agency has an agency catastrophe plan in place.

EARTHQUAKES

San Francisco, 1906

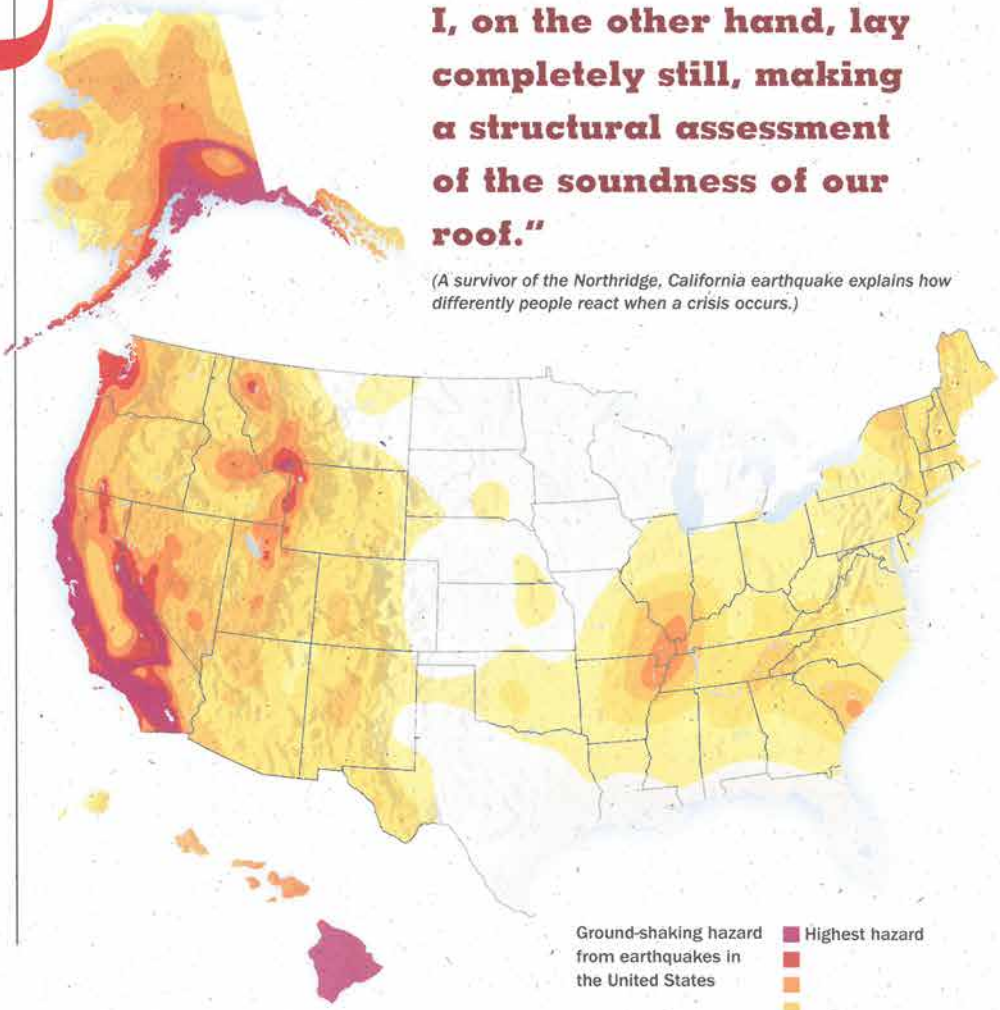
The great tenor Enrico Caruso appeared in Carmen *at the Mission Opera House a few hours before the 1906 San Franciso earthquake killed at least 700 people and devastated the city. Reflecting on the experience, Caruso said: "What I see makes me tremble with fear. I see the buildings toppling over, big pieces of masonry falling, and from the street below I hear the cries and screams of men and women and children."*



IN HIS OWN WORDS

"When the quake hit, my wife's feet hit the floor, running for the children. I, on the other hand, lay completely still, making a structural assessment of the soundness of our roof."

(A survivor of the Northridge, California earthquake explains how differently people react when a crisis occurs.)



Overleaf: *A tornado tears through Pampa, Texas, 1995.*

The Northridge earthquake lasted only 17 seconds. Yet it made its mark as the second most costly disaster in U.S. history and the largest earthquake to hit southern California since 1971. Measuring 6.8 on the Richter scale, the quake jolted the San Fernando Valley, 20 miles northwest of downtown Los Angeles, on January 17, 1994. Sixty people were killed and 9,000 were injured. Some 8,000 homes were destroyed and over 92,000 buildings were damaged. More than 430,000 claims were filed totaling $12.5 billion in insured losses. Of those claims, 75% were residential, 16% commercial and 9% auto.

What is an earthquake?

An earthquake is the sudden, sometimes violent, movement of the earth caused by the abrupt release of energy that has been accumulating deep within the earth over a long period of time. The outer crust of our earth is formed of huge plates that are constantly moving over, under and past each other. An earthquake occurs when these plates grind and scrape against each other.

Whose fault is it, anyway?

The boundaries between these plates are called faults. Most faults lie below the earth's surface. The San Andreas fault in California is actually visible. One of the largest in the country, it runs more than 650 miles long and 10 miles deep. Although nearly everyone associates California with earthquakes, more than 12 million people now live along the New Madrid fault which winds through portions of Missouri, Illinois, Tennessee and Arkansas. The largest earthquake in the contiguous United States occurred along the New Madrid fault on February 7, 1812. With a magnitude of 8.0, the earthquake was felt by people as far away as Boston and Denver. Other major fault lines exist in the Midwest and the East.

Scientists can estimate where earthquakes are most likely to occur. But what makes earthquakes so dangerous is the fact that, unlike other natural disasters, there's no warning.

Earthquakes represent the greatest threat on the West Coast. Nine of the 10 most costly U.S. earthquakes occurred in California. Statistics show that since 1900, earthquakes have occurred in 39 states and have caused damage in all 50. Alaska and California have the most earthquakes, while the fewest occur in Florida and North Dakota.

Did you know?

There's a 100% chance of an earthquake occurring today.

In a typical year, between 400 and 500 earthquakes are reported in the United States.

The fault responsible for the Northridge, California earthquake, the second most costly disaster in U.S. history, was unknown before the earthquake hit.

Landslides triggered by earthquakes often cause more destruction than the earthquake itself.

Upper left: *During the Northridge, California earthquake in 1994, this modern wood-frame residential building collapses inward over the entrance to the first-story parking level.*

Below: *During the same disaster, bridges on the Simi Valley Freeway in Los Angeles sustain considerable damage.*

Before an earthquake

You won't get a timely warning, but there are steps you can take now to minimize injury and damage.

Assess your home's vulnerability to earthquakes, especially if you live near a fault line. You can obtain fault-zone maps from your city or county planning department or check with your independent insurance agent for further information.

Locate a safe place in every room where you can go when an earthquake occurs. Choose a place away from windows where nothing can fall on you, preferably under a sturdy table or desk, or under an interior doorway.

Help quake-proof your home by bolting tall furniture and the water heater to wall studs. Attach mirrors, pictures and other objects securely to the wall. Do not hang glass-framed pictures behind your bed.

Use flexible connectors for gas-fueled appliances to prevent them from snapping.

Install strong latches on cupboards to prevent objects from falling out.

Make sure your house is bolted to the foundation. Check with your local building inspector to determine if walls need additional bracing.

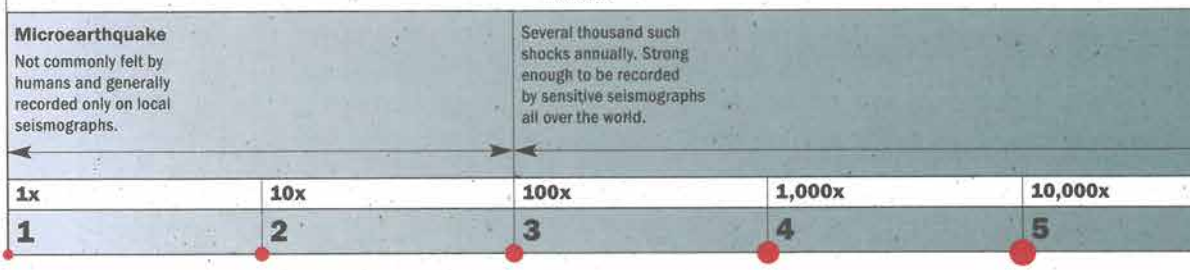
If a severe earthquake does occur, you may be asked to evacuate. To be prepared, read the section "Preparing for a disaster" and have your disaster supplies kit packed.

Richter Scale

The size of an earthquake is measured on the Richter scale, which records the magnitude of the earth's movement. A recording of 7.0, for example, means the disturbance is 10 times as large as a recording of 6.0. Earthquakes with a magnitude of 2.0 are usually the smallest that will be felt. Those with a Richter value of 6.0 or more are considered major. In 1964, an earthquake in Alaska measured 9.2 on the Richter scale, making it the most powerful earthquake in 20th-century United States history.

Left: *A Los Angeles police officer expresses his sorrow amid wreckage at a freeway interchange where a fellow officer died during the Northridge earthquake in 1994.*

Above: *Part of the interior structure of a parking garage collapses.*



During an earthquake

The shaking that occurs during an earthquake lasts for a few minutes, although it may seem like an eternity. To protect yourself, remember these three words: duck, cover and hold.

- Move away from windows and exterior doors.
- Lie low and take cover, preferably under a table, desk or other safe spot. Protect yourself by curling up, if you can. Cover your head, spine and chest areas. Hold on to the furniture and be prepared to move with it.
- If you're in a high-rise building, move against an interior wall. Again, try to find a desk or table to crawl under. Do not use the elevators. Expect the fire alarms and sprinklers to go off.
- If you're in a car, pull over and stop. Avoid bridges and overpasses. Stay in the car until the shaking stops.
- If you're outdoors, find a spot away from buildings, trees and power lines. Lie on the ground.
- If you're on a sidewalk near buildings, try to duck into a doorway to protect yourself from falling glass or debris.

After an earthquake

Be prepared for aftershocks. Although they may be smaller and less intense than the main quake, they could cause additional damage or cause tottering buildings or other structures to fall. Stay indoors until after the shaking stops and you're sure it's safe to exit.

- If no one in your house is injured, place a sign saying "all OK" on the door so emergency teams can assist those who do need help.
- Check your house carefully for chimneys or walls that might be damaged and ready to fall.
- Reposition anything in your closets and cupboards that may be damaged or ready to fall.

Above: *A freeway interchange shatters from the impact of the Northridge, California earthquake, 1994.*

Below: *The second story of a building in Granada Hills, California, completely collapses during the same quake.*

Are you covered?

Most basic homeowners polices do not cover earthquake damage. Check with your independent insurance agent to find out how to protect your assets if there is an earthquake in your area.

Opposite, top: *Several buildings in Sepulveda, California, close because of interior damage.*

6.7 *Northridge, CA, 1994*

9.2 *Alaska, 1964*

Great earthquake

On average, one earthquake of this size occurs somewhere in the world each year. Although the Richter scale has no upper limit, the largest known shocks have had magnitudes in the 8.8 to 9.2 range.

100,000x	1,000,000x	10,000,000x	100,000,000x	1,000,000,000x
6	7	8	9	10

Chicago, 1871

Did Mrs. O'Leary's cow really cause the Great Chicago Fire of 1871 by kicking over a lantern in the barn? According to the testimony given by 50 individuals interviewed at the time, we'll never know for sure. Mrs. O'Leary herself claimed she knew nothing about the cause of the fire and was mainly concerned with the loss of her own possessions.

FIRES

Home fires and wildfires. No matter what the cause or source—whether they begin within your home or are the result of external circumstances beyond your control—fire causes enormous destruction to property and has great potential for loss of life.

In less than 30 seconds, a small flame can burn out of control to become a major fire. With adequate insurance coverage, the cost of damage to your home and most of your possessions can be recovered. But you are irreplaceable. So, even though you're strongly tempted to run back for something of value, don't do it! It's almost impossible to outrun a raging fire and you'd be putting yourself at risk.

Firefighters attempt to control a house fire in the Palm Beach area of Florida in 1993.

By planning ahead, there are things you can do now to fireproof your home and surrounding property.

This portion of your guide is divided into two sections: the first deals with home fires, the other has to do with the threat of wildfire. Many of the tips offered here are general enough to apply in either case. Some are specific just to a home fire or a wildfire. Please take the time to read through both sections because they complement each other. A wildfire can easily become a home fire and vice versa.

"Three people aren't going home today."

(A neighbor refers to the three firefighters killed while trying to rescue a resident in a Brooklyn, New York apartment fire on December 18, 1998.)

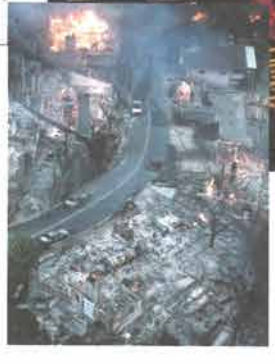
A resident returns home after the fierce wildfires in the Laguna Beach area of California in 1993 and finds only ashes and rubble.

At home...

Tips for the kitchen

Since most residential fires begin in the kitchen, take the following precautions:

Place a working fire extinguisher in the kitchen. Make sure everyone knows how to use it.	Do not leave cooking food unattended.
Keep your stove and oven in good operating condition.	
Have baking soda on hand to extinguish stove-top grease fires.	
Move the handles of pots and pans away from the front of the stove.	
Keep flammable curtains and towels away from the burners.	
Store flammable liquids away from ignition sources.	



Above: *Flames engulf a home in Palm Beach, Florida.*

Left: *A fire storm burns a residential street in Laguna, Beach, California, during the worst fire in Orange County history, 1993.*

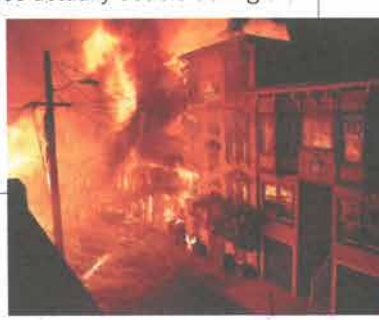
In Laguna Beach, California, a bungalow is engulfed by flames next to a swimming pool filled with water.

Holiday fires

Each year, Christmas tree fires cause death, injury and millions of dollars in property damage. Poorly maintained, dry trees which come in contact with faulty electrical cords and plugs can be disastrous. Many consumers aren't aware that trees are often cut several weeks before they arrive on a lot. One way to test the freshness of a tree is to gently grasp a branch between your thumb and forefinger. When you pull it toward you, very few needles should come off in your hand. You can minimize the chance of a holiday fire by following these safety tips:

- Cut your own tree from a "choose and cut" lot or use a live tree to plant in your yard after the holidays.
- Don't leave a tree unsheltered or out of water for more than a couple of days.
- Before you set up your tree, make a fresh straight cut across the base of the trunk to improve the tree's water absorption.
- Choose a sturdy tree stand that holds at least a quart of water.
- Water your tree every day with fresh tap water only.
- Keep your tree away from heat sources, such as fireplaces or vents. Position it away from your emergency exit route.
- Use safe, cool burning tree lights, designed for interior use. Test all light cords, extension cords and connections before hanging them. Never use outdoor lights on your tree.
- Use only nonflammable decorations.
- Avoid commercial fire retardants. Some actually increase the rate of moisture loss from a tree.
- Always unplug tree lights before leaving home or going to sleep.
- Never use candles to decorate a tree.
- Safely dispose of your tree as soon as it begins dropping needles. Don't leave a discarded tree in your garage or lean it against the house. Don't burn a discarded tree in your fireplace or wood stove.
- Choose only fire-retardant artificial trees.

Candles contribute to a festive atmosphere but they also cause an average of 6,700 home fires every year. Fires caused by candles actually double during the month of December. Always place candles in stable holders and make sure you blow them out before leaving the house or going to bed. In the event of a power outage, don't use candles to light your house. Have flashlights on hand.



Home safe home

Of the nearly 5,000 people who die in fires in the U.S. each year, more than 80% are killed at home. Although home fires are caused by several factors (cooking, heating, arson and smoking), fires caused by smoking are responsible for the highest number of deaths (22.9%). Fires started by children playing with matches account for almost 5% of the fires and approximately 10% of the fatalities. According to the National Fire Prevention Association, children under five years of age and the elderly had the highest death rates.

You can help prevent home fires, save lives and lower your insurance costs by throwing away those cigarettes. Many insurance companies offer discounts to non-smokers. Ask your agent about it today.

Fire-proof your home, inside...

Install a battery-powered smoke detector outside each sleeping area and on each level of your home.

Check each smoke detector once a month.

Replace smoke detector batteries at least once a year.

Make sure that windows are not stuck and that screens can be taken out quickly.

Install quick-release devices on all security bars so they can be opened immediately in an emergency.

Install a screen on your fireplace.

Store the ashes from your fireplace in a noncombustible container and dispose of them only when they're cold.

Clean fireplace chimneys and flues at least once a year.

Select a location outside your home to serve as a meeting place after escaping.

If you use kerosene heaters in your home, keep them at least three feet away from anything flammable. Make sure they have "tip" switches which will automatically turn the device off if it tips over. Use only the type of fuel recommended by the manufacturer and never refill the heater while it's still hot. Always refuel heaters outdoors.

Install child safety caps on all electrical outlets.

Replace electrical cords that are frayed or have loose connections.

Turn off electrical appliances when not in use.

Avoid overloading electrical outlets.

Consider installing home sprinklers.

Have a collapsible ladder on each upper floor of the house.

Never smoke in bed.

Practice your escape plan at least twice a year.

Did you know?

A residential fire occurs in the United States every 67 seconds.

January is the top month for home fires (11% of the year's total) and resulting deaths (14%).

Most residential fires are caused by cooking accidents.

Careless smoking is the leading cause of residential fire deaths.

More than 5,000 Americans die each year in fires, and more than 25,000 are injured.

Below: *Fire destroys a house in Port St. Lucie, Florida, and leaves the charred remains of a family photo in its wake.*

Bottom: *Firefighters attempt to extinguish a residential fire in south Florida.*

...and out

Be alert to any condition that may be a fire hazard, such as drought.	Make sure your roof and gutters are free from debris.
Remove branches that are within 10 feet of your chimney.	Install a roof that meets the fire resistance classification of "Class C" or better.
Remove all flammable vegetation that is within 30 feet of your home and replace it with fire resistant plants. If your house is on a steep slope, remove flammable vegetation out to 100 feet.	Cover your chimney outlet and stovepipe with a nonflammable screen of 1/2 inch or smaller mesh.
Remove vines from the walls of your house.	Keep barbeques at least 10 feet from the house.
Water and mow the grass regularly.	Stack woodpiles at least 30 feet from the house, and clear away flammable vegetation within 10 feet of the woodpile.
	Keep butane and propane tanks at least 30 feet from the house and surround them with 10 feet of clearance.
	If your water comes from a well, consider an emergency generator to operate the pump during a power failure.
	Have a garden hose that's long enough to reach any area of your property.

Above: *A fire in Flagler County, Florida, 1998, leaves a home in ruins.*

Below right: *A wall of flames climbs the outside of this high-rise apartment building.*

During a fire

If you see smoke, leave the house immediately. Don't waste valuable time trying to save property.	If your clothing catches fire, drop to the floor and roll to extinguish the fire.
Call 911 from a neighbor's house.	Never go back into a burning building.
Stay low to the ground when escaping to avoid smoke inhalation.	Do not use elevators during a fire.
Never open doors that are hot. Feel the bottom of the door with your hand. If it is hot, don't open it. If possible, find another way out.	
If you are trapped in a burning room and can't escape, go to a window and signal for help. If there's a phone in the room, call the fire department and tell them where you are.	

IN HIS OWN WORDS

"You could hear the little sizzle as the hot ash hit you."

(A 20-year old college student describes what happened as a wildfire rages through an area near Glenwood Springs, Colorado, in July 1994.)

. . . and in the wild

The words "urban wildfire" sound like a contradiction in terms, with "urban" signifying development and order, and "wildfire" connoting something out of control.

To enjoy a spectacular view and a sense of privacy, more families are choosing to build in wooded areas and grasslands or on foothills and mountainsides. And as they do, the boundary between wild land and urban land becomes more blurred. Wildfire conditions spread beyond their previously confined areas, putting homes at risk. A case in point: between 1970 and 1996, the population of 11 California counties grew more than 150%. Before construction of homes began, almost all those counties were predominately forest.

A wildfire can be caused by careless human behavior or by an uncontrollable natural phenomenon like lightning.

The intensity of a wildfire is the most important factor contributing to the ignition and destruction of houses. Fire intensity can be lowered either by expanding the cleared area adjacent to your home or by thinning the vegetation. This helps reduce the amount of "fuel" available. Other factors include fire-safe construction and the topography itself. Because heat rises, fire travels faster uphill. If your home is located on a hill, it's more susceptible to being engulfed by a fire that started below.

Top: *Arson in the parched canyon above Laguna Beach, California, starts the worst urban wildfire of 1993, destroying 14,000 acres and 441 houses; a resident keeps vigil atop his house.*

Above: *Fast-moving flames spread toward the water in North Laguna, 1993.*

A brush fire roars toward homes in Port St. Lucie, Florida, 1998.

Turning wildfire away

If you act now, you can help prevent the loss of life and property as a result of wildfire. By using common sense and following the steps outlined below—especially those that have to do with home construction, landscaping, yard organization and access—your home will have a better chance of sustaining minimal or no damage.

In the event of a wildfire:

If there is threat of a wildfire, warnings will be issued. Listen to your local radio or TV news program for the latest information.

Evacuate immediately, if you are told to do so. Take your disaster supplies kit with you and begin to implement the disaster preparedness plan you have already developed.

If you are not told to evacuate and if you have time, here are some things you can do to minimize damage to your property if there is a threat of wildfire in your area:

Back your car into the garage or park in an open space, facing the direction of the escape route. Shut the car doors and roll up the windows. Leave the key in the ignition. If the car is in the garage, close the garage door but disconnect the automatic garage door openers.

Confine your pets to one room, so they'll be easier to find in case you have to evacuate.

Secure the inside of your home. Close windows, vents, doors, blinds and drapes. Open fireplace dampers and close screens.

Move flammable furniture away from windows to the center of the room.

Turn a light on in each room to increase the visibility of your home in heavy smoke.

Secure the outside of the house: seal attic and ground vents with plywood; turn off propane tanks; put patio furniture inside; connect garden hoses to taps; set up a portable generator; water the shrubs close to the house.

Measuring drought

The Keetch-Byram Drought Index

The Keetch-Byram Drought Index (KBDI) is the most commonly used indicator of drought. The KBDI range is from 0 to 800 with 800 being a desert-like condition. A drought index number above 700 means that the soil moisture is extremely low.

0–200	200–400	400–600	600–800
Soil moisture and large class fuel moistures are high and do not contribute to much fire intensity. Typical of spring dormant season following winter precipitation.	Typical of late spring, early growing season. Lower layers are drying and beginning to contribute to fire intensity.	Typical of late summer, early fall. Lower layers actively contribute to fire intensity and will burn actively.	Often associated with more severe drought with increasing wildfire occurrences. Intense, deep-burning fires with significant downwind spotting can be expected. Live fuels can also be expected to burn actively at these levels.
200	400	600	800

Tips for new home construction

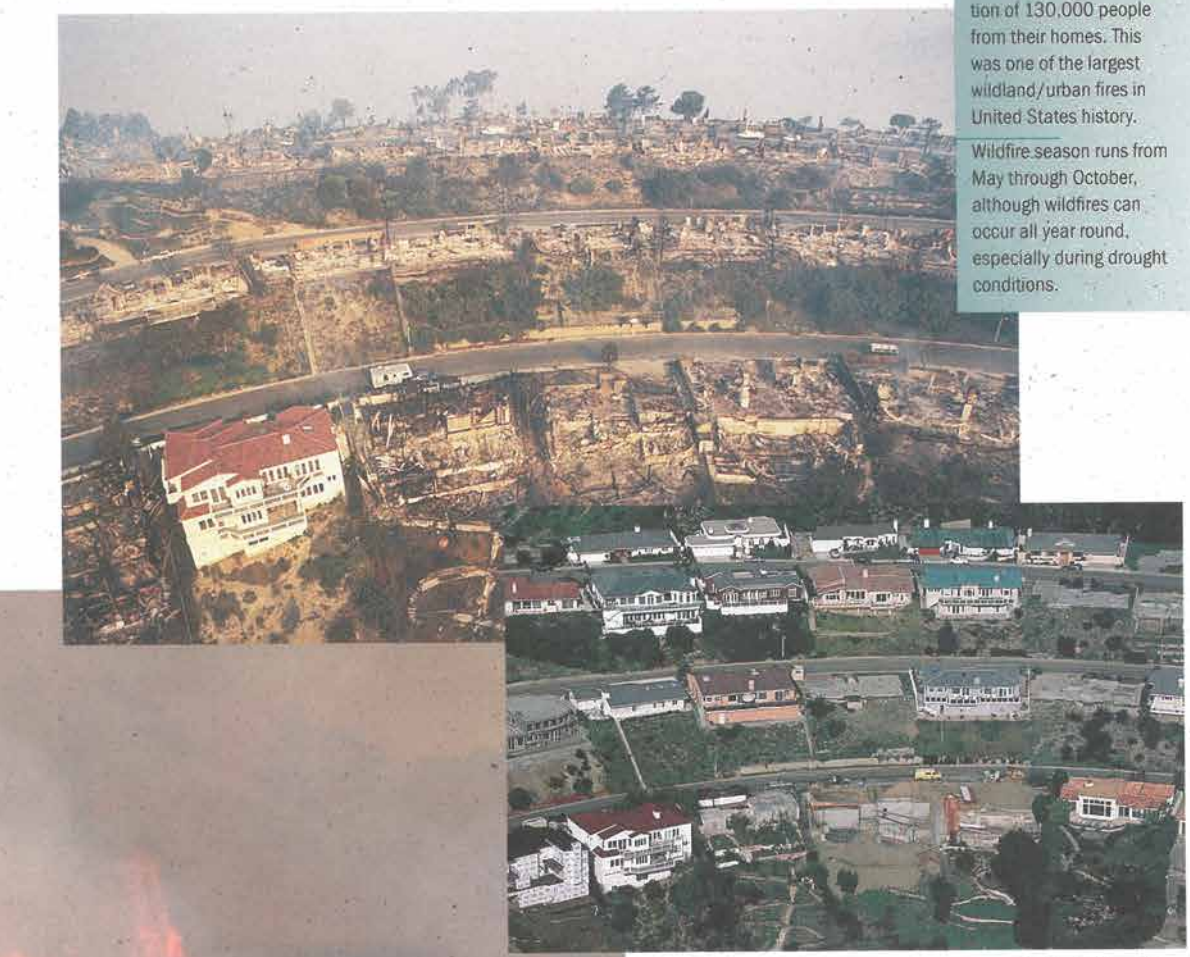
If you're constructing a house, keep these pointers in mind:	
Build your home away from ridge tops, canyons and areas between high points of a ridge.	Enclose the underside of balconies and above-ground decks with fire-resistant materials.
Build your home at least 30 feet from your property line.	Limit the size and number of windows that face large areas of vegetation.
Use fire-resistant building materials.	Install dual- or triple-paned windows.

Did you know?

Wildfires are not confined to the West, as is commonly believed. In 1996, wildfires occurred in every state, burning a total of 6.4 million acres of land.

A total of 2,282 wildfires started and 499,477 acres burned in Florida from June 1 until July 22, 1998, causing the evacuation of 130,000 people from their homes. This was one of the largest wildland/urban fires in United States history.

Wildfire season runs from May through October, although wildfires can occur all year round, especially during drought conditions.



Top: *The Mystic Hills neighborhood in Laguna Beach, California, takes the worst hit of the 1993 fires, with 286 homes turning to ash. One that survives has a fireproof tile roof, stucco walls, extra insulation and fire-resistant landscaping.*

Above: *The same neighborhood undergoes reconstruction after the 1993 fires.*

IN HIS OWN WORDS

"I've never been that scared in all my life. For every three steps forward, I took two steps back."

(This man describes what it was like as he ran seven blocks trying to reach his mother's house during a June 1998 flood in Arcadia, Wisconsin.)

Noah's Ark

Some say that Noah's ark was nearly the size of an aircraft carrier—too small to hold all the animal species found on earth plus a 14-month food supply for the animals and the eight people aboard. Others say the ark was the size of a 150-unit apartment building, with approximately 57 mammals and 69 reptiles in each apartment, not to mention the birds and insects!

FLOODS

Most people believe they will never be affected by a flood. But they're mistaken. The truth is that 90% of all natural disasters in this country involve flooding. You don't have to live near an ocean or a river to be affected by a flood. In fact, between 25% and 30% of flood insurance claims come from areas designated as low flood risk.

Above: *Snow melting from blizzards in 1997 causes the Red River to overflow, creating record-breaking floods in the upper Midwest; fires caused by electrical shorts destroy 11 buildings in Grand Forks, North Dakota.*

Left: *In 1994, the rain-swollen San Jacinto River floods the streets of this Texas town, forcing families to flee.*

A flood is a temporary condition during which the surface of normally dry land is partially or completed inundated. A **flash flood** means just that—it occurs in a flash, taking only a few minutes to a few hours to develop. Pay very close attention to a **flash flood watch** or a **flash flood warning** because danger is imminent and you have little time to prepare. See page 36 for more information on what these announcements mean.

A flood may occur after a hurricane, a tornado, a snowstorm or an excessive rainfall. A flash flood is often caused by a slow-moving thunderstorm. Flooding can occur along rivers, lakes and coastal areas, but it can also happen in urban areas. As forests and meadowlands are converted to roads and parking lots, the land loses its ability to absorb water. Runoff from a heavy rainfall can turn streets into rivers and basements into pools. As the water rushes through a city or town, it can uproot trees, tear out bridges, destroy buildings and carry away anything in its path.

The worst flood in United States history occurred in 1889 when a dam broke in Johnstown, Pennsylvania. A 36- to 40-foot wall of water left 2,200 people dead.

In 1997, the Red River broke a 100-year record and crested 22.6 feet above flood stage, resulting in 11 deaths and destruction of communities in North Dakota and portions of Minnesota. At one point, approximately 90% of the city of Grand Forks, North Dakota was under water, causing the evacuation of 60,000 people. Overall damages and cleanup costs in the Grand Forks area alone reached almost $2 billion. The flooding was caused by a long series of winter snowstorms and an early April blizzard, showing how one catastrophe builds upon another.

Did you know?

Flash flooding is the number one weather-related killer in the United States.

Eighty percent of flood deaths happen to people in vehicles.

Only six inches of rapidly moving water can knock you off your feet, and a depth of two feet will float your car.

Residents of Falmouth, Kentucky, rake debris out of a flooded front yard in 1997.

Before a flood

When a flood watch is issued, move your furniture and valuables to higher floors in your home.	If told to evacuate, do so immediately, especially if the warning is for flash flooding. It will be easier to leave before the flood waters become too deep.
Fill your car with gas in case you have to evacuate.	If you live in a flood-prone area, stockpile emergency building materials, shovels and sandbags.
Get your disaster supplies kit ready to take with you. You may be given very short notice to evacuate.	Protect your home by having check valves installed in sewer traps to prevent flood waters from backing up in sewer drains.
Bring outdoor furniture inside.	Have large corks or stoppers on hand to help plug showers, tubs and basins.
When a flood warning is issued, listen to your local radio and TV stations for information.	Fill tubs, sinks and jugs with fresh water in case the water supply becomes contaminated.
If told by authorities, turn off all utilities at the main switch and close the main gas valve.	

Watches and Warnings

Flood watch
A flood is possible in your area.

Flood warning
Flooding is already occurring or will soon occur in the vicinity.

Flash flood watch
A flash flood is possible.

Flash flood warning
A flash flood is happening or will happen very soon.

Urban and small stream advisories
Flooding of local small streams is likely to occur and will affect streets and low-lying areas, such as railroad underpasses and storm drains.

Coastal flood watch
The possibility exists for the inundation of land along the coast within the next 12 to 36 hours.

Coastal flood warning
Land along the coast is expected to be inundated.

During a flood

Don't attempt to drive through floodwaters.	No matter where you are, move to higher ground.
Abandon your car if it stalls in an area where there are rapidly rising waters.	Move away from rivers, streams, creeks and storm drains.
	Avoid walking through floodwaters.
	Obey traffic instructions and detour information. They are being issued for your safety.

Firefighters rescue a man trapped on top of his car in San Antonio, Texas, 1998.

A home in the Lincoln Park area of Grand Forks, North Dakota, is up to its eaves in Red River waters during the 1997 floods.

After a flood

The danger caused by floods isn't over when the water recedes, so don't attempt to return home until authorities say it's safe to do so. When you get back home:

- If your car has been submerged, let it dry out thoroughly before trying to start it.
- Use battery-powered flashlights or lanterns to examine the premises. Do not attempt to turn the lights on until you are sure it is safe to do so.
- Watch out for snakes that may have come into your home with flood waters. Use a stick to poke through debris.
- Pump water gradually from flooded basements to avoid structural damage.
- Shovel out mud while it is still moist.
- Raise wall-to-wall carpeting to allow air to circulate through it.
- When plaster walls have dried, brush off loose dirt. Wash with a mild soap solution and rinse with clean water.
- Clean out heating and plumbing systems.
- To prevent metal objects from rusting, clean immediately, wipe with a kerosene-soaked cloth and apply a light coat of oil.
- Allow clothing and household fabrics to dry before brushing off loose dirt.
- Boil any water you use for drinking or food preparation until the water supply is declared safe.
- Throw out any food or medicine that has come in contact with flood waters.
- Take wooden furniture outside to dry, but keep it out of direct sunlight to prevent warping.
- Before the house is aired out, scrub all woodwork and floors with a stiff brush.

Are you covered?

Most homeowners insurance policies don't cover flood damage. Be aware that wind-driven rain, which enters through wind-damaged windows or doors, may be considered windstorm, not flooding.

Please see page 18 for a more detailed discussion of the insurance coverage you need to protect your property from flood damage. As always, consult your independent insurance agent for further information.

Floodwaters damage houses, swimming pools and storage sheds in Falmouth, Kentucky, 1997.

Saving family photos

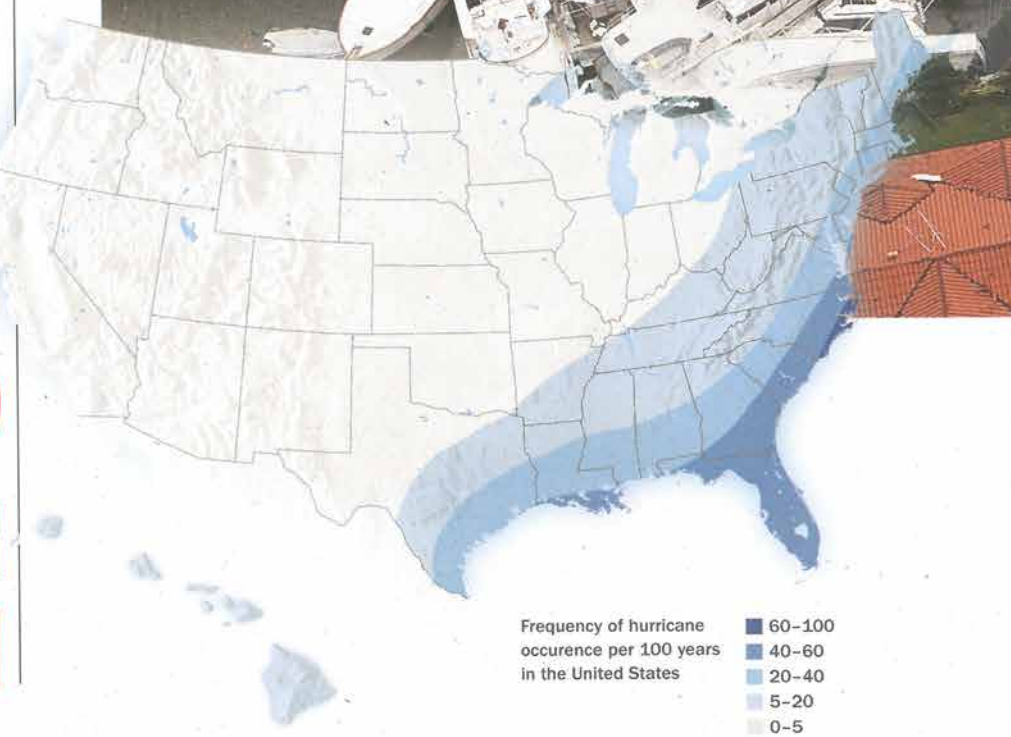
Often when people are interviewed after a major disaster, they express profound sorrow over the loss of family photos. Houses and everything inside them can usually be replaced but photos, which contain years of memories and family history, cannot. These tips may help you preserve your water-damaged photos:

- Most prints, negatives and slides can be air-dried. Put the image or picture side face up and avoid touching the front surface.
- Hang the items on a clothesline, using wooden or other non-abrasive clothespins or use a fan to circulate the air. If using a fan, do not aim it directly at the photos.
- For a framed photo, place the frame glass-side down and remove backing materials. Remove the photo and air-dry it. If the photo is stuck to the glass, don't remove it. Keeping the glass side down, try to dry the frame with the photo inside.
- If photos are covered with mud or dirt and are still wet, they may be gently rinsed in clean, cold water.
- If negatives are stuck together or if your photos are badly damaged, consult with a photographic conservator at your local museum or historical society.

HURRICANES

"There are chunks of asphalt everywhere, a car 200 yards offshore, huge tower cranes twisted like toys, upside-down semi rigs just lying in the sand. Whole buildings are destroyed and atomized into chunks no bigger than a yard across. In one case, a house had been taken up and thrown 50 yards into the air."

(A resident of Navarre Beach, a barrier island 20 miles east of Pensacola, Florida, describes what he sees after Hurricane Opal ripped through in September 1995.)



Galveston, 1900

The Galveston hurricane is still on record at the nation's deadliest disaster, killing over 5,000 people, decimating the city and leaving at least 8,000 people homeless.

On August 23 and 24, 1992, Hurricane Andrew pounded the Bahamas and southern Florida. He then moved across the Gulf of Mexico to strike portions of Louisiana and other southeastern states. All told, Andrew caused $15.5 billion in damage, making it the costliest disaster in U.S. history. If Andrew had hit just 20 miles farther north, it would have struck the Miami metropolitan area, with projected damages exceeding $50 billion.

With winds of almost 200 mph, Hurricane Andrew flattened whole communities, destroyed thousands of homes and businesses, ruined crops and left a trail of debris behind. After the storm, some 61,000 residents were displaced from their homes and 87% of the cars in Dade County suffered some kind of damage.

What is a hurricane?

A hurricane is a tropical storm with winds ranging from 74 miles per hour to in excess of 155 miles per hour. Even at minimum speed, a hurricane's winds can damage houses, tear down power lines and break or uproot trees. The winds are accompanied by rain, thunder, lightning and flooding.

The formation of a hurricane requires two essential ingredients: heat and moist air. In summer and early fall, the air over a warm ocean heats up and absorbs moisture. It then rises and spirals around a center called the eye, where the strongest winds and heaviest rains occur.

Hurricane season runs from June through November, but the height of the season is from mid-August to mid-October.

Some 64 million people now live in hurricane-vulnerable coastal areas of the United States. By the year 2010, this number is expected to swell to more than 73 million. The coastal populations of Florida, Georgia, and North and South Carolina are at the highest risk of hurricane damage. However, the states with the highest potential for losses (due to exposure to windstorms and high property values) are Florida and New York.

Did you know?

Nine out of 10 hurricane deaths are caused by flooding.

The most active four-year period on record for Atlantic hurricanes was 1995-1998.

Right: *Hurricane Andrew rages along the shore in Fort Lauderdale, Florida, 1992.*

Opposite page: *Powerboats are thrown like matchsticks in 175 mph winds as Hurricane Andrew hits south Miami, Florida, in 1992.*

Are you covered?

Most homeowners insurance policies will cover hurricane damage caused by wind; however they may not cover property damage caused by floods, even though the floods were a direct result of the hurricane. For further information, please see the section on flood insurance (page 18) and consult your independent insurance agent.

Before a hurricane

There are several things you can do to hurricane-proof your property if you live in an area that is particularly vulnerable to this type of natural disaster.

Install hurricane shutters or precut 3/4" pieces of marine plywood for each window of your home.	Make trees more wind resistant by removing diseased or damaged limbs, then strategically removing branches so that wind can blow through.

Thanks to scientific advances, many lives have been saved because we can now predict the path, development and intensity of a hurricane. If a hurricane watch or warning is issued, be prepared to act immediately.

When a hurricane is approaching, a hurricane watch or a hurricane warning will be announced through your local news media. (See page 41 for further information on hurricane watches and warnings). Be prepared to act quickly if an evacuation notice is given.

To go...

If local authorities recommend that you evacuate, do so immediately. Their recommendation is based on knowledge of the strength of the storm and its potential to cause death and destruction.

Be prepared to evacuate, especially if you live on the coastline, on an offshore island, in a mobile home, or near a river or floodplain. High winds and flooding are common even if the hurricane doesn't make landfall.

Here are some specific steps to take when a hurricane is imminent:

Take your disaster supplies kit, sleeping bags and blankets.	Anchor outdoor objects that cannot be brought inside.
Lock the windows and doors of your home before leaving.	Call your emergency contact person to report your plans.
Turn off all utilities.	Fill your car's gas tank.
Make sure all windows are protected with plywood or shutters.	Follow the recommended evacuation routes.
Store away lightweight objects that could become airborne.	

Measuring a hurricane's intensity

Saffir/Simpson Hurricane Scale

A hurricane's destructive power is measured by a combination of its wind and ocean-surge intensity. Using the Saffir/Simpson Hurricane Scale, forecasters assign to each hurricane a rating of 1 to 5, with 5 being the most dangerous. The following chart indicates how much flooding and property damage to expect along coastal areas:

Note: A "major" hurricane is one that is classified as a category 3 or higher.

4 *Hurricane Andrew, 1992*

Category 1	Category 2	Category 3	Category 4
light damage *74–95 mph wind speeds* *4–5 foot storm surge* No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery and trees. Also, some coastal flooding and minor pier damage.	**moderate damage** *96–110 mph wind speeds* *6–8 foot storm surge* Some roofing material, door and window damage of buildings. Considerable damage to vegetation, mobile homes, etc. Small craft damage.	**extensive damage** *111–130 mph wind speeds* *9–12 foot storm surge* Some structural damage to small residences and utility buildings. Terrain may be flooded well inland.	**extreme damage** *131–155 mph wind speeds* *13–18 foot storm surge* Some roof damage on small residences. Major erosion of beach areas. Terrain may be flooded well inland.

...or not to go

If you are not told to evacuate, settle in and stay put. Keep the roads free for those who need to use them. Don't be fooled! The first part of the storm is followed by a period of tranquility. It is only the eye of the hurricane passing over. The rest of the storm is yet to come.

- Collect your disaster supplies kit, blankets and sleeping bags and keep them near you.
- Keep children and pets indoors.
- Make sure your battery-powered radio is nearby.
- Make sure all windows are protected with plywood or shutters.
- Store away lightweight objects that could become airborne.
- Anchor outdoor objects that cannot be brought inside.
- Turn off all utilities.
- If you're along the immediate coast and in danger of a storm surge, go to a room on an upper floor, preferably one without windows. Stay there until the storm passes.
- If you're in a location not susceptible to a coastal storm surge, then go to an interior room on the lowest floor to protect yourself from wind-related damage.

After the hurricane

- If you have evacuated, wait until authorities tell you it's safe before returning home.
- Be alert for tornadoes.
- Stay away from flood waters.

Review the checklists on page 55 which cover some steps you'll need to take when you get back home.

Watches and Warnings

Tropical storm watch
Winds from 39 to 74 miles per hour are possible within the next 36 hours.

Tropical storm warning
Tropical storm conditions are expected within 24 hours.

Hurricane watch
An approaching hurricane is a potential threat to coastal areas. If you are in the affected area, stay tuned to radio and TV news and be prepared to act quickly if a hurricane warning or evacuation notice is given.

Hurricane warning
A hurricane is expected to hit a specific area within 24 hours. At this point, you may be asked to evacuate if you live on or very close to the coast, in a low-lying area, in a mobile home, or near a river or floodplain.

Left: *These homes are badly damaged and underwater as Hurricane Andrew roars through Florida in 1992.*

Below: *In the wake of Hurricane Andrew, this mobile home park is in ruins.*

catastrophic damage
155+ mph wind speeds
over 18 foot storm surge

Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required.

Category 5

THUNDER

Coffeyville, 1970

Slam dunk, anyone? The largest hailstone on record, measuring 17.5 inches in diameter and weighing 1.67 pounds, fell in Coffeyville, Kansas on September 3, 1970.

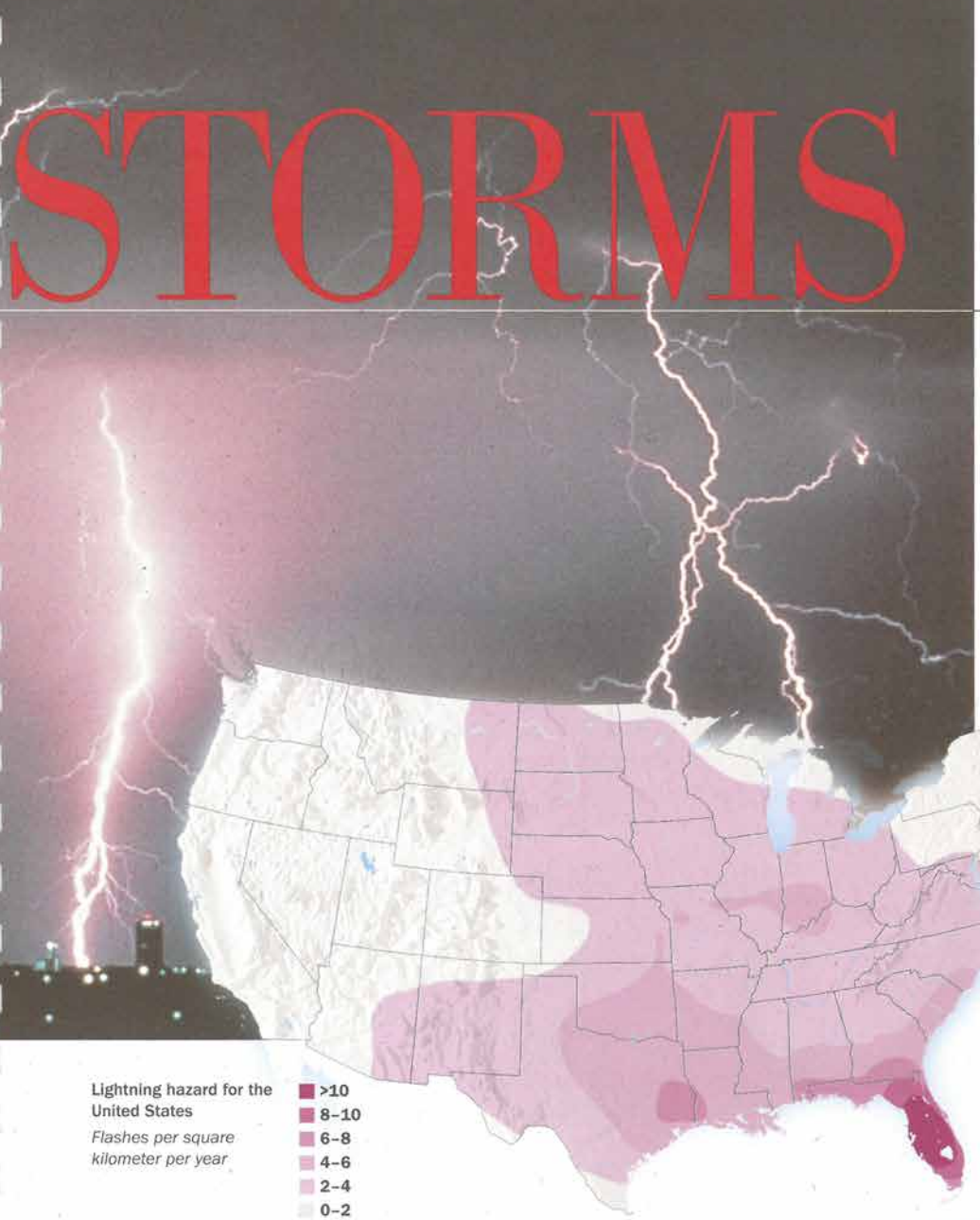
Lightning presents a phenomenal visual display and is often referred to as nature's fireworks.

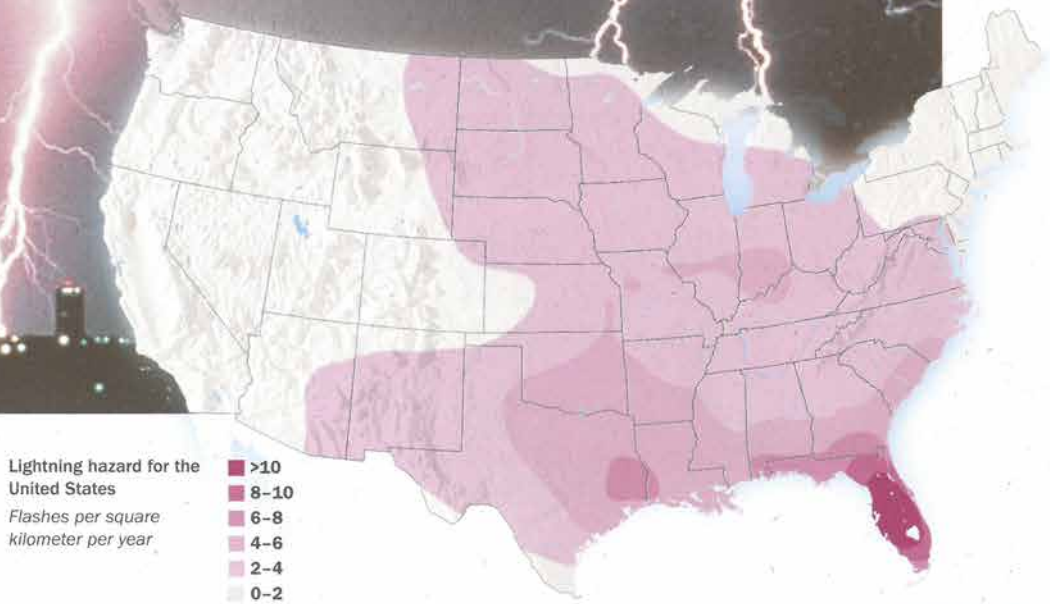
IN HER OWN WORDS

"You can see her new hairdo that she has from the lightning...it singed from up there down the back and around her neck."

(A mother points to a tuft of hair sitting straight up in the middle of her seven-year-old daughter's head, after the girl was struck by lightning during a storm in Medina, Minnesota.)

STORMS





Lightning hazard for the United States
Flashes per square kilometer per year

- >10
- 8–10
- 6–8
- 4–6
- 2–4
- 0–2

You probably wouldn't think of putting a thunderstorm in the same category as a hurricane or tornado. The sphere of a thunderstorm's activity is relatively small compared to those of other catastrophes. A typical thunderstorm covers an area about 15 miles in diameter and lasts about 30 minutes. But even though they're small, thunderstorms are dangerous because they can produce lightning, hail, heavy rain, strong winds and flash flooding, and they are often followed by tornadoes.

Thunderstorms are most likely to occur in the spring and summer months, during the afternoon and evening hours. Watches and warnings are usually issued when danger is imminent. Listen for tornado and flash flood warnings as well since they often develop after a thunderstorm. (See page 45 for information on watches and warnings for thunderstorms).

Did you know?

Lightning hits the earth about 100 times per second on average, or 8.6 million times a day.

In the United States, there are as many as 20 million cloud-to-ground lightning strikes per year from about 100,000 thunderstorms.

The costliest hail storm in U.S. history occurred in Denver, Colorado on July 11, 1990, causing $625 million in damage.

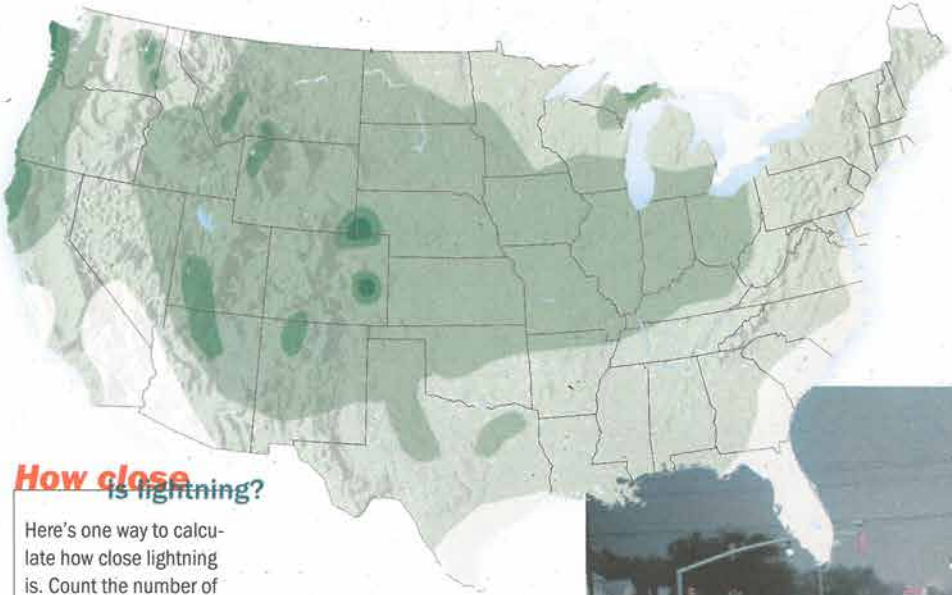
An average lightning flash could light a 100-watt bulb for more than three months.

Lightning and Hail

As air rapidly rises and falls during a thunderstorm, positive and negative charges are formed. Lightning results from the buildup and discharge of all that electrical energy. Lightning is actually a spark that can reach over five miles in length, attain a temperature of approximately 50,000° Fahrenheit and contain over 100 million electrical volts.

Lightning is responsible for approximately 93 deaths and 300 injuries each year. In the past decade, over 15,000 lightning-induced fires resulted in hundreds of millions of dollars in damage a year, and the loss of two million acres of forest.

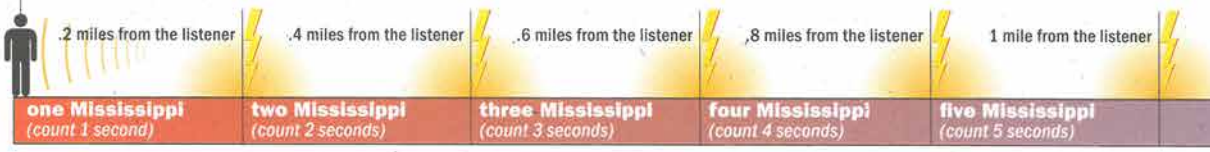
Hailstones, some reported to be as large as baseballs, often accompany severe thunderstorms. Hail can cause considerable damage to your house and car, and can also hurt humans and animals. At the onset of hail, take shelter immediately and make sure your pets are sheltered as well.



How close is lightning?

Here's one way to calculate how close lightning is. Count the number of seconds between a flash of lightning and the next clap of thunder. Divide this number by five. The number you get tells you how many miles away the lightning is.

Large hailstones, measuring two to three inches in diameter, collect on streets and grass during a severe thunderstorm.



THUNDERSTORMS

Before a thunderstorm

Remove dead tree branches near your house which could ignite and cause a fire if struck by lightning.	Unplug all appliances before the storm hits to prevent power surges.
	Close blinds and shades.

During a thunderstorm

It's a myth that rubber soles on shoes or rubber tires on a car will protect you from being struck by lightning. Take the following precautions:

Keep away from windows.	structures, such as towers, trees, fences, telephone lines or power lines.
Avoid using the phone. Telephone lines can conduct electricity.	Squat low to the ground and assume a tucked position. Place your hands on your knees with your head tucked between them. Try to touch as little of your body to the ground as possible. Do not lie flat on the ground, as your fully-extended body will provide a larger surface to conduct electricity.
Stay away from faucets, sinks and bathtubs.	
If you are in or near water, go to land immediately and find the best shelter you can—preferably inside a building rather than a car.	
If you're in a car, keep the windows closed. Pull to the side of the road to wait until the heavy rain subsides. Keep away from trees that could fall on your car.	If you feel your hair stand on end in a storm, drop into the tuck position immediately. This sensation means electrical charges are already running up your body from the ground toward an electrically charged cloud. If you can minimize your contact with the ground, you will minimize your injury.
If you are outside, find a location that is not likely to flood. Avoid tall	

Watches and Warnings

Severe thunderstorm watch
Winds are 58 miles per hour or more. Hail three-quarters of an inch or greater is likely to develop.

Severe thunderstorm warning
Serious danger is imminent. This is the time to go to a safe place within the home. Follow the directions for a tornado or flash flood warning as these often accompany thunderstorms.

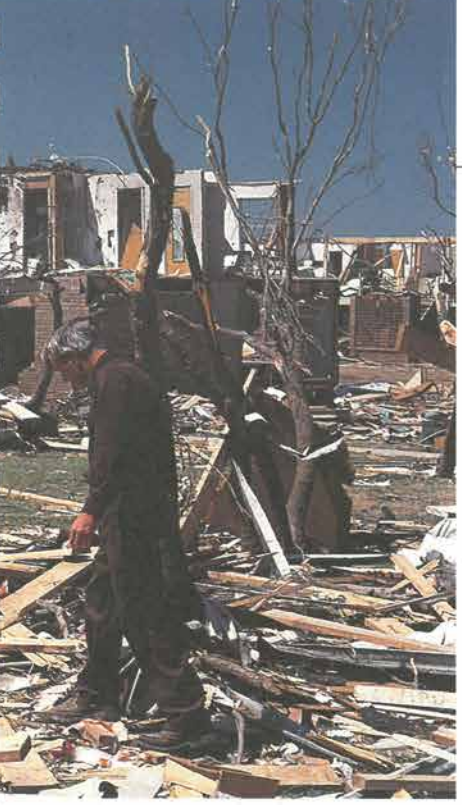
After a thunderstorm

Once lightning has struck a person or an object, the person or object does not carry a charge and cannot harm you. So don't be afraid to touch or assist a person who needs help. Administer first aid or CPR immediately. A lightning victim usually suffers burns in two places on the body—where the lightning entered and where it exited.

TORNADOES

Tupelo, 1936

Here's one for the Rock and Roll Hall of Fame. On April 5, 1936, a tornado raged through the city of Tupelo, Mississippi, killing more than 200 people. Reportedly, Elvis Presley was one of the survivors.



IN HIS OWN WORDS

"We could hear the house coming apart."

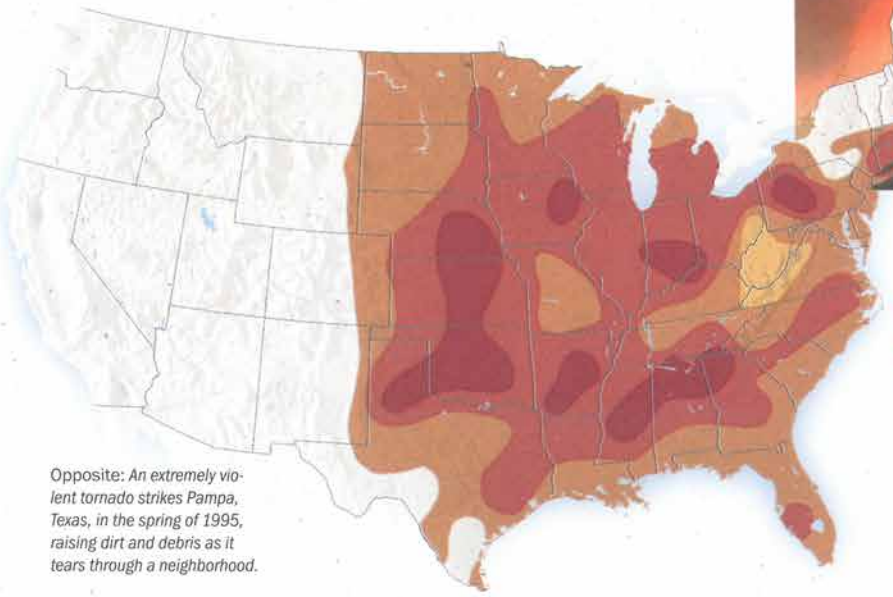
(This man recalls the day in 1982 when a tornado swept through his Illinois town. He lay on the bathroom floor, while his wife and daughter crouched in the bathtub. Miraculously, the family survived, although the house was destroyed.)

Left, top: *One of the most destructive tornadoes in U.S. history hits Wichita Falls, Texas, in 1979.*

A tornado is a violently rotating column of wind, extending from a thunderstorm in the sky to the ground. It is seen as a funnel-shaped cloud progressing in a narrow path over the land. Often, but not always, a tornado will occur in conjunction with a severe, hail-producing thunderstorm or it may accompany a tropical storm or hurricane.

A tornado can and does strike every month of the year, although the peak of tornado season is April through July. Since 1950, April has proven to be the deadliest tornado month.

If you look at statistics for the year 1997, you can see how tornadoes affected states from North to South, East to West. In 1997, the highest number of tornadoes occurred in the following states: Texas, (191); Florida, (115); Kansas, (64); Oklahoma, (57); Minnesota, (47); Colorado (47). Overall in 1997, 1,151 tornadoes hit 43 states, killing 67 people.



Opposite: *An extremely violent tornado strikes Pampa, Texas, in the spring of 1995, raising dirt and debris as it tears through a neighborhood.*

Watches and Warnings

Tornado watch
Conditions are favorable for tornadoes to develop.

Tornado warning
A tornado has actually been seen in the area.

Before a tornado

Become familiar with the type of alarm or notification system your local government will put into effect to let you know if a tornado watch or warning is being issued. Above all, don't wait until a tornado warning is issued to find out what to do. Make sure everyone in the family is fully prepared to take responsibility for his or her own safety.

The best preparation for a tornado is to be alert to changing weather patterns. Pay attention to weather reports and rely on your own instincts and experience.

Nature provides certain environmental clues that may precede a tornado. Look for a dark, greenish sky, a wall of clouds and pieces of hail sometimes as large as grapefruits. Eyewitnesses say a tornado produces a loud roar, similar to that of an approaching freight train.

Above: *A tornado roars through Abilene, Texas, 1989.*

Right: *A tornado in Kissimmee, Florida, in 1998 tears roofs off homes and throws automobiles like toys.*

Measuring tornadoes

Fujita Scale
In the late 1960s T. Theodore Fujita, then working at the University of Chicago, developed a method for classifying the damage caused by tornadoes based on aerial and ground assessment. The F scale ratings range from light to incredible damage.

Gale tornado *light damage* 40–72 mph wind speeds Some damage to chimneys; branches broken off; shallow-rooted trees pushed over; sign boards damaged.	**Moderate tornado** *moderate damage* 73–112 mph wind speeds The lower limit is the beginning of hurricane wind speed; surfaces peeled off roofs; mobile homes pushed off foundations; moving autos pushed off the roads.	**Significant tornado** *considerable damage* 113–157 mph wind speeds Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; heavy cars lifted off the ground and thrown.
F0	**F1**	**F2**

TORNADOES

During a tornado

If a tornado watch or warning is issued, be prepared to take the following precautions:

The safest place to be during a tornado is underground. If there is no basement in your home, a small room in the middle of the house is best. Stay away from windows.

Get under a steady piece of furniture, such as a heavy table or desk. Hold on to it and use your arms to protect your head and neck.

If you live in a mobile home, even if it has tie-downs, you should leave and seek shelter somewhere else.

If there is no safe place inside, go outside and lie flat on the ground with your hands over your head and neck.

If you're in a car, get out and seek a safe shelter or lie down in a low area, again with your hands over your head and neck.

If you're in a high-rise building, make your way to an interior room on the lowest floor. Avoid windows.

Did you know?

About 1,000 tornadoes twist through the United States every year.

The most violent tornadoes—with winds up to 300 miles per hour—can last an hour or longer.

Although tornadoes can occur anytime, anywhere, they're most likely to appear in late afternoon during the month of April.

After a tornado

Check for injured or trapped persons. Do not move seriously injured persons, unless they are in immediate danger of further injury.

Right: *Wind speeds of 287 mph are recorded during a violent tornado near Red Rock, Oklahoma, in 1991.*

Below: *Residents sift through debris after their homes are completely demolished in the violent Wichita Falls, Texas tornado, 1979.*

F4 *Wichita Falls, TX, 1979*

F4 *Red Rock, OK, 1991*

Severe tornado
severe damage
158–206 mph wind speeds
Roofs and some walls torn off well-constructed homes; trains overturned; most trees in forest uprooted.

F3

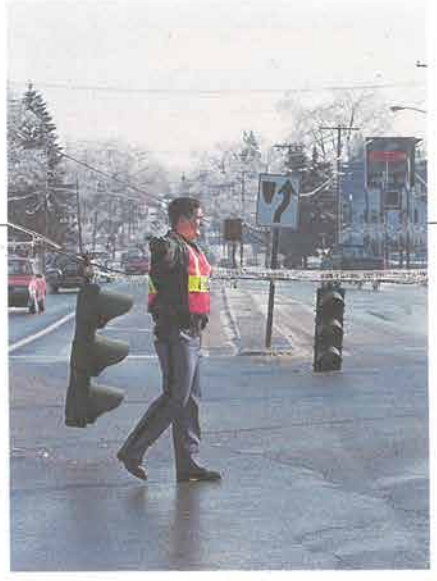
Devastating tornado
devastating damage
207–260 mph wind speeds
Well-constructed houses leveled; structures with weak foundations blown away.

F4

Incredible tornado
incredible damage
261–318 mph wind speeds
Strong frame houses lifted off foundations and carried considerable distance; automobile-sized missiles fly through the air in excess of 100 yards; trees debarked; incredible phenomena will occur.

F5

WINTER STORMS

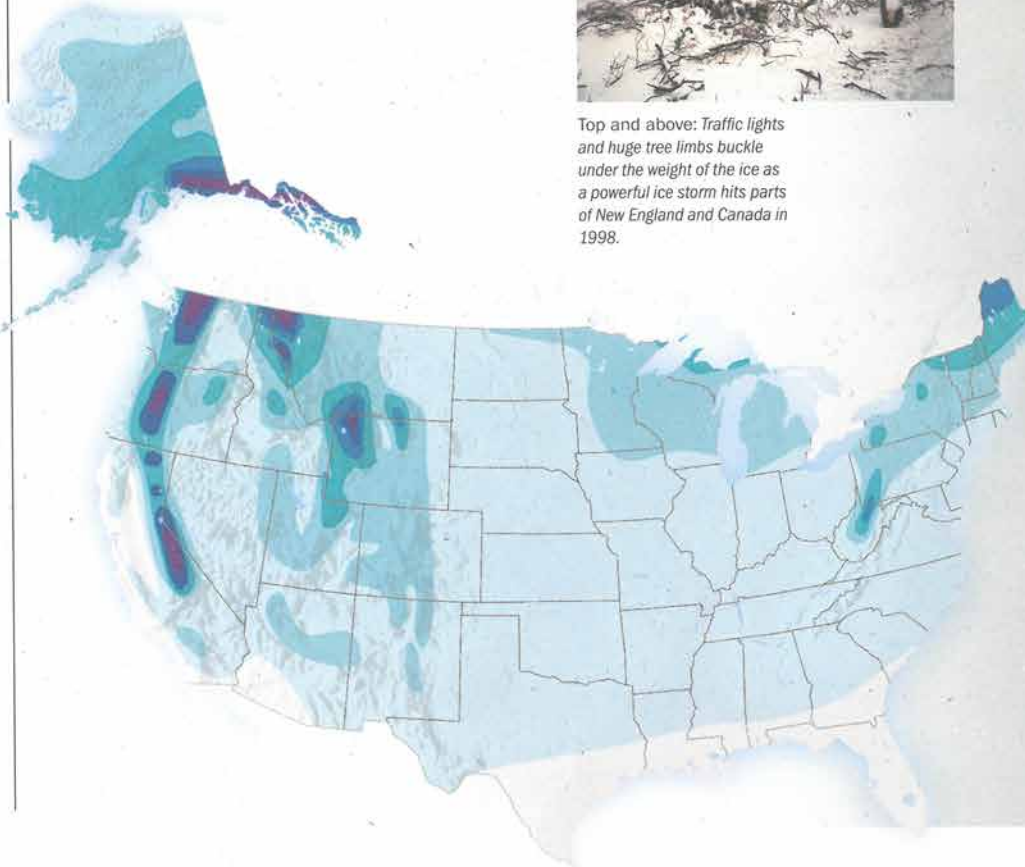


Winter storms bring ice, snow, cold temperatures and often dangerous driving conditions. High winds and/or heavy accumulations of ice can knock down trees, utility poles and power lines, disrupting communication for days until utility companies can repair the extensive damage. Pipes may freeze and burst in homes that are poorly insulated or without heat.

A storm becomes a blizzard when it brings large amounts of falling or blowing snow and sustained winds of at least 35 miles per hour.

When the snow starts falling, a beautiful landscape is created. The grime of the city is covered under a clean, sparkling blanket. And in rural areas, a fairytale landscape is painted before our very eyes. But when a snowstorm turns into a blizzard with freezing sleet, high winds and cold temperatures, the results can be deadly.

Top and above: *Traffic lights and huge tree limbs buckle under the weight of the ice as a powerful ice storm hits parts of New England and Canada in 1998.*



IN HER OWN WORDS

"I'm stuck. I may not get out of here until the snow melts."

(During the blizzard of '93, an 85-year-old Boston woman describes how her street was covered with ice and sealed off by four-foot high banks of ice at each end.)

Washington, D.C., 1996

The blizzard of 1996 caused a paperwork pile-up in Washington D.C. that was almost as high as the snowfall! With government offices partially closed over a three-week period, the Passport Office alone reported a backlog of approximately 200,000 applications.

An 82-year-old woman struggles through driving snow, fierce winds and 20-foot-high snow drifts in an attempt to reach her mailbox in Marshall, Minnesota, 1997.

Opposite page:
Average annual snowfall for the United States
(in inches)

- >200
- 160–200
- 120–160
- 80–120
- 40–80
- 0–1

Watches and Warnings

Winter storm watch
Severe weather conditions, such as heavy snow and/or ice, are possible within the next day or two. Start to prepare now.

Winter storm warning
Severe winter conditions have begun or are about to begin. Stay indoors.

Blizzard warning
Snow and strong winds will combine to produce a blinding snow, deep drifts and life-threatening windchill. Seek shelter immediately.

Frost/freeze warning
Expect below-freezing temperatures. People who live in areas unaccustomed to this type of weather, or those who do not have heat in their homes, need to take extra precautions.

Before a winter storm

- Make sure each member of your household has adequate winter clothing: a warm coat, mittens or gloves, a hat and water-resistant boots.
- Keep a supply of extra blankets in the house.
- Learn how to treat frostbite, hypothermia (low body heat) and exposure to the cold.
- Winterize your home: insulate your walls and attic; caulk and weather strip the doors and windows; install storm windows or cover the inside of windows with plastic.
- Make your home fire-safe. See the section on Home Fires on page 27.
- Before winter arrives, make sure you have adequate heating fuel.
- Stockpile wood for your fireplace.
- Have alternative heating devices ready, such as kerosene or electric heaters. To prevent fire, observe all safety rules when using these devices.
- Make sure snow removal equipment is in working order.
- Have rock salt on hand to melt ice on walkways. Spread kitty litter on walkways to help generate traction.
- Prepare your car before the winter storm season begins. Have a mechanic check your car, especially the battery, antifreeze, wipers and washer fluid level, ignition system, thermostat, lights, exhaust system, heater, brakes, defroster, oil level, and tire treads and pressure.
- Keep your car's gas tank full for emergency use and to prevent the fuel line from freezing.

During the storm

- Wear several layers of clothing, including gloves and a hat to prevent your body from losing heat.
- Warm up by stretching often, especially before you go outside.
- Keep dry to prevent a loss of body heat.
- Let faucets drip to prevent pipes from freezing.
- Conserve fuel by lowering the thermostat to 65 degrees during the day and 55 degrees at night. Close off unused rooms.
- Watch for signs of frostbite: loss of feeling and a white, pale appearance on the skin, especially on fingers, toes, nose or ear lobes.
- Be alert for signs of hypothermia, which include uncontrollable shivering, slow or slurred speech, memory lapses, frequent stumbling, drowsiness and exhaustion.

Measuring windchill factor

You often hear about the windchill factor. Exactly what is it? It's what your body perceives the temperature to be, based on both air temperature and wind velocity. If it's a cold, windy day, your body loses more heat than it would when the wind isn't blowing. For example, if the actual temperature is 15 degrees and winds are blowing at 35 miles per hour, the windchill index is -27 degrees, which can cause frostbite. The technique for measuring windchill was developed by scientists in Antartica during the Second World War.

Wind speed in mph

Actual air temperature	0	5	10	15	20	25	30	35	40
	What it feels like								
50	50	48	40	36	32	30	28	27	26
40	40	37	28	22	18	16	13	11	10
30	30	27	16	9	4	0	-2	-4	-6
20	20	16	4	-5	-10	-15	-18	-20	-21
10	10	6	-9	-18	-25	-29	-33	-35	-37
0	0	-5	-21	-36	-39	-44	-48	-49	-53
-10	-10	-15	-33	-45	-53	-59	-63	-67	-69
-20	-20	-26	-46	-58	-67	-74	-79	-82	-85
-30	-30	-36	-58	-72	-82	-87	-94	-98	-102

Safe winter driving tips

Negotiating snow- and ice-covered roads provides drivers with a real challenge. Even if you are careful and in control of your vehicle, an accident can occur when another driver loses control and skids. Auto accidents are the leading cause of death during winter storms. It's wise to rely on public transportation when there's snow and ice on the road. But if you must drive, here are some precautions you can take to minimize harm to yourself and damage to your auto:

- Always let someone know where you're going and what route you'll be taking. If you should get stuck, they can send help to you.
- Keep your gas tank full to prevent the fuel line from freezing.
- Have a disaster supplies kit in your car (see pages 9 and 10 for a list of things that should be in it). In winter, keep a small bag of sand or non-clumping cat litter to use for extra traction if you get stuck.
- Keep a cell phone in your car.
- Check the manual that came with your car and become familiar with the car's braking system and how to use it when driving in snow or on ice.
- If you do get stuck, don't leave your car. Tie a cloth to the antenna and use your car phone to call for help. Use the heater sparingly and keep the exhaust pipe clear so fumes won't return to the car. Move your arms and legs from time to time to keep blood circulating and to help you stay warm.
- Open the window slightly to let air in from time to time.

Did you know?

The January Blizzard of 1996 killed 100 people and did an estimated $2 billion in damage. Although the economic cost was lower than that of Hurricane Andrew, the death toll was higher.

The leading cause of death during winter storms is traffic accidents.

Although there appears to be no damage to this car, the owner is going nowhere due to heavy ice-covered trees.

Left: *A woman scrapes ice off her car window with the hope of driving out from under ice-covered branches in the aftermath of the 1998 ice storm.*

Below: *Ice-covered power lines snap a utility pole in half and shut down traffic on this road in Maine during the 1998 ice storm that hit New England and Canada.*

IN HER OWN WORDS

"It's two months since the quake and our hospital hotline still rings off the hook with people in awful emotional distress...Even I'm still grieving."

(A crisis counselor at a local hospital reflects on the post-traumatic stress caused by the Northridge, California earthquake in 1994.)

After a DISASTER

If a natural disaster has occurred and resulted in damage to your property, begin assessing your losses as soon as possible while everything is still fresh in your mind.

If the damage looks substantial, check with authorities before you attempt to re-enter your house to be sure it is not in danger of collapse. Exercise extreme caution as you begin to work. Depending on the type and severity of the disaster, there may be downed or exposed wires, loose debris, a contaminated water supply or other hazards.

If you do see downed power lines, contaminated water supplies or damaged gas and sewer lines, report them immediately to the proper utility company.

For your safety and protection, here are some tasks you can begin right away:	
Before you start cleaning up debris, prepare an inventory of all damaged or destroyed personal property. If you can, videotape or photograph the damage.	Save remnants of damaged or destroyed property for your insurance company adjuster.
Make temporary repairs to prevent further damage.	Do not sign agreements with contractors or anyone else until you have a chance to meet with your insurance adjuster.
Clean up any flammable or poisonous materials that may have been spilled.	Keep a written record of everyone you talk to about your insurance claim, including the date of the conversation and a summary of what was said.
Dispose of all spoiled food immediately. If you have insurance coverage for spoiled food, document your losses.	Keep all receipts.
Hold off permanent repairs until you've received approval for reimbursement.	

Opposite top: *Homes in Los Angeles County slide into a canyon in the aftermath of the Northridge earthquake, 1994.*

Opposite bottom: *A resident sits on the detached staircase leading to an apartment destroyed in the same earthquake.*

When checking for damage in your home, keep these safety tips in mind:	
Use a flashlight. Do not light matches or turn on electrical switches.	Turn off the main electrical circuit switch. Be careful to stand on a dry surface and do not touch the metal handle of the switch box. Use a piece of heavy rubber, plastic or a piece of dry wood to open the metal door and throw the switch. Share your concerns with a licensed electrician.
Sniff for gas leaks. If you smell gas or suspect a leak, turn off the main gas valve, open windows and evacuate. If you have any concerns, have the gas system checked by a professional.	
Do not touch wires or outlets.	Watch for holes in the floor, loose boards or hanging plaster.
Check for frayed cords and for cracked or broken prongs and plugs.	If your home has been flooded, check for snakes and other animals that may have entered the property.
The inventory you prepared at the beginning of this guide will be of great assistance to you at this point. After you've examined everything and determined the extent of damage, call your independent insurance agent as soon as possible to file your claim.	

A homeowner sorts through the waterlogged remains of his basement hobby room, which was completely underwater in Silver Grove, Kentucky, 1997.

Guarding your family's health

After a major natural disaster, the operations of public water, sewer and solid-waste disposal systems may come to a halt and the availability of medical, pharmaceutical and public health services may be interrupted.

At the same time, there is often an increase in illnesses or injuries. For example, public health professionals report carbon monoxide poisonings caused by the indoor use of gasoline-powered generators, electrocutions, wound infections, animal and insect bites, and so forth. Due to the high level of stress during a major natural disaster, people with chronic illnesses, such as asthma, diabetes or heart disease often experience an increase in symptoms.

If a large number of people are evacuated and have to live in shelters, it becomes difficult to maintain simple standards of personal hygiene, such as hand washing.

Do not drink tap water unless you are told it is safe to do so. To help protect your family, make sure you boil or purify any water you use for drinking or food preparation. Do not use any food that may have come in contact with flood water. Avoid injury by following the safety tips offered in this chapter.

The psychological effects of disaster

During a disaster, people often perform heroic, often super-human, acts. It's as if the mind suppresses what is going on so that the body can engage in self-survival tactics. After a disaster, people may experience the loss of family members, friends, neighbors or pets. Perhaps their homes or businesses were destroyed.

Family members comfort each other as they view the destruction caused by a fire in Laguna Beach, California, 1993.

It isn't until later, sometimes long after the disaster has passed, that people begin to experience psychological reactions, including nightmares, flashbacks, changes in appetite, anger, depression and feelings of anxiety. Psychologists point out that these are normal reactions to extraordinary events. Substance abuse, domestic violence and suicide attempts are some of the more serious behaviors seen.

If you or members of your family experience any of these symptoms, encourage them to talk openly about it. By sharing feelings, affected family members will realize they are not alone. Seeking qualified professional help will facilitate the healing process.

Resources

General Information:

American Psychological Association (APA)
Provides tips on coping with the aftermath of a disaster.

www.apa.org
(202) 336-5500

American Red Cross
Offers a wealth of education materials on natural-disaster preparedness and recovery, highlighting sections on floods, hurricanes and tornadoes. Has special materials for children, and a donation help-line.

www.redcross.org/disaster/
To donate: (800) HELP-NOW

The Disaster Center
Provides links and information on all types of disasters, from hurricanes to volcanos.

www.disastercenter.com

Disaster Relief
Publishes resources and information on disasters worldwide. The Disaster Relief website is a cooperative effort between the American Red Cross, CNN Interactive and IBM.

www.disasterrelief.org

Federal Emergency Management Agency (FEMA)
Manages Federal disaster aid and educational programs on natural disasters. Oversees the U.S. Fire Administration and National Flood Insurance Program. Offers a special website for kids.

www.fema.gov
www.fema.gov/kids/
(800) 480-2520

Mapquest
Provides specific maps based on user-defined criteria, including driving directions. Useful in planning your emergency evacuation routes.

www.mapquest.com

National Oceanic and Atmospheric Administration (NOAA)
Has primary responsibility for providing weather forecasts. Oversees the National Weather Service. An essential informational source with useful, linked websites. Over 7,000 online photos.

www.noaa.gov
(202) 482-6090

National Weather Service (NWS)
www.nws.noaa.gov
(202) 619-7256

United States Geological Survey (USGS)
Provides information on land-based natural disasters, such as earthquakes, hurricanes and land/mud slides, and offers access to thousands of maps. Educational resources include "Learning Web" for K-12.

www.usgs.gov
www.usgs.gov/education/
(800) USA-MAPS

The Weather Channel
Contains a wealth of information about weather and weather-related disasters, including current and breaking conditions all over the world.

www.weather.com

Earthquakes:

National Earthquake Information Center (NEIC)
A division of USGS, the NEIC tracks seismic activity and produces earthquake-related data and mapping.

wwwneic.cr.usgs.gov
(303) 273-8500

Fires:

Drought Information Center
A round-up of NOAA resources, the site provides information on drought conditions, heat waves and fire potential for the U.S.

www.drought.noaa.gov

National Fire Protection Association (NFPA)
Provides fire safety news, reports and publications on home fires and wildfires; collects data on instances of fire across the U.S. Sponsors Fire Prevention Week and offers online fire safety resources for kids.

www.nfpa.org
www.sparky.org
(703) 516-4346

U.S. Fire Administration (USFA)
Produces statistical reports, publications and safety information on fire-related disasters. Includes a fire safety page for kids.

www.usfa.fema.gov
www.usfa.fema.gov/kids/

Floods:

National Flood Insurance Program (NFIP)
Managed by FEMA, the NFIP makes Federally-backed flood insurance available in communities across the country, reducing the need for taxpayer-funded disaster assistance. Insurance is available through NFIP regional offices, insurance companies and independent insurance agents.

www.fema.gov/nfip/

Hurricanes:

National Hurricane Center (NHC)
A division of NOAA, the NHC offers the latest forecasts, warnings, analyses and satellite images of tropical storms and hurricanes.

www.nhc.noaa.gov

Tornadoes:

Tornado Project Online
Provides comprehensive information on tornadoes. The Tornado Project has been locating, organizing and publishing information (and more recently video) on tornadoes since 1970.

www.tornadoproject.com
(802) 748-2505

Tornado Weather Watchers
Offers information on tornado forecasting, as well as a comprehensive web disaster center. Provides a platform for people to post information; provides coverage before, during and after some of the larger disasters; and hosts the largest index of links to disaster information by subject and by geographic area.

www.disastercenter.com/tornado

Insurance-related sites:

Institute for Business and Home Safety (IBHS)
Provides information on how to reduce damage and injury resulting from natural disasters. An initiative of the insurance industry to reduce deaths, injuries, property damage, economic losses and human suffering caused by natural disasters.

www.ibhs.org
(617) 292-2003

Independent Insurance Agents of America (IIAA)
Provides extensive consumer information on insurance topics; helps consumers locate independent insurance agents in their hometowns, and offers a variety of publications.

www.independentagent.com
(800) 221-7917

Insurance Information Institute (III)
Offers information on disaster planning and insurance. III's "Property/Casualty Fact Book" contains many statistics on natural disaster-related claims.

www.iii.org
(212) 669-9200

Insurance News Network
This online insurance news site includes a variety of articles on natural disaster-related topics.

www.insure.com

Life Advice Program
MetLife provides information on a variety of natural disasters.

www.metlife.com
(800) MET-LIFE

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Project MAP: Make A Plan was designed as an easy-to-use reference to help you and your family plan for, get through and recover after a natural disaster. We hope you have found this guide to be informative and useful. Please take a moment to let us know what has been most helpful to you. We'd also appreciate your feedback on what type of information we should include in the future. Send your comments to disasterproject@iiaa.org.

The Independent Insurance Agents of America (IIAA)

is committed to providing consumers the independent information they need to make informed decisions about buying insurance to protect their families, homes, cars and businesses.

Founded in 1896, IIAA is the nation's oldest and largest national association of independent insurance agents, representing a network of more than 300,000 agents and agency employees nationwide. Its members are small businesses that offer customers a choice of policies from a variety of insurance companies. Independent agents offer all lines of insurance—property, casualty, life, health, employee benefit plans and retirement products.

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Independent Insurance Agents of America

127 South Peyton Street
Alexandria, VA 22314

800.221.7917 ☎
703.683.7556 **fax**
www.independentagent.com