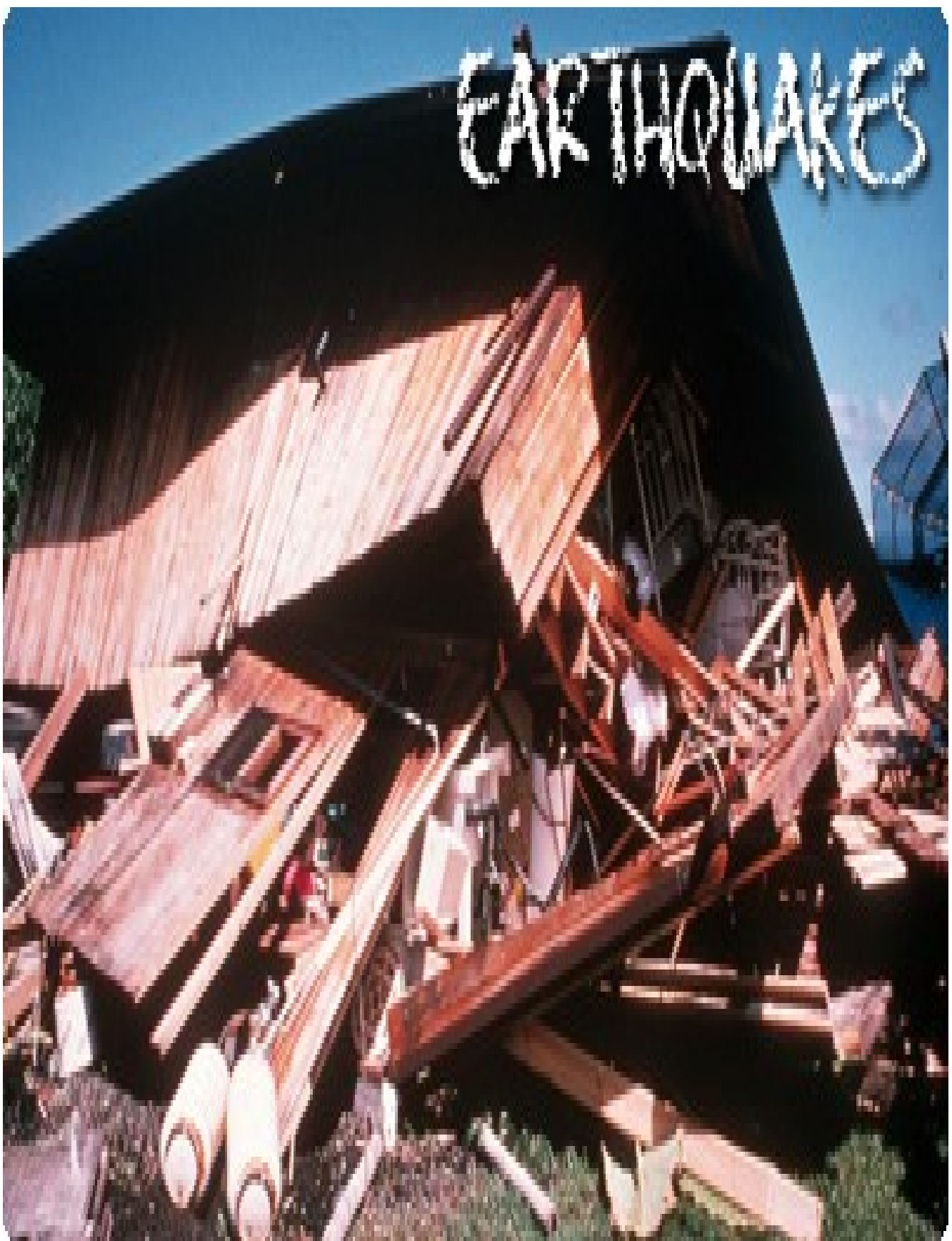


EARTHQUAKES



FIRE



After an
Earthquake/Fire Be
Prepared! Have the
following supplies
with you if You are
Going to Help
Neighbors or Going
off the Rez to bring
Someone Home.

Recommended Equipment and Supplies

- Nylon/canvas Bag with shoulder Strap
- Water (two Canteens or 2 bottles per person)-don't forget to include the people you are going to help.
- Dehydrated Foods
- Water purification tablets
- Work gloves
- Goggles
- Dust mask
- Flashlight or miners lamp
- Batteries and extra bulbs
- Secondary flashlight or light sticks
- Utility knife
- Note pads
- Marker (thick point and Thin point)
- Pens
- Duck tape
- Mask tape (2inch)
- Scissors
- Crescent wrench
- First Aid pouch containing:
 - 4x4 gauze dressing (6)
 - Abdominal pads (4)
 - Triangular bandages (4)
 - Band-Aids
 - Roller bandage

Additional Information and History of Earthquakes and Fires

Earthquakes

An Earthquake is a sudden slipping or movement of a portion of the Earth's crust or plates, caused by a sudden release of stresses. Earthquake epicenters are usually less than 25 miles below the Earth's surface and are accompanied and followed by a series of vibrations.

The reason that earthquakes are such a risk is because shaking ground can:

- Cause building to move off their foundations or collapse.
- Damage utilities, structures, and roads.
- Cause fires and explosions.
- Cause structural instability, such as dam failure that can trigger flash floods.

Earthquakes (Continued)

Earthquakes can also trigger landslides and avalanches or tsunamis. After an earthquake, it is important to listen for emergency instructions.

Together, all of these types of damage threaten lives, property, and the environment .

The greatest likelihood of a major earthquake is in:

- The Western United States, Particularly along the San Andreas Fault in California and up the Alaskan coast.
- Missouri and a few pockets on the east coast.

Some statistics about earthquakes include:

- Fifteen percent of the population lives in the zones of potential major disaster.
- California's 17 million people face the highest risk, followed by the residents of Washington State
- Four million people are within the destructive reaches of the fault in Missouri.

Earthquakes(Continued)

Hundreds of tremors are felt each year, particularly in California. Major earthquakes are rare,
However, five Major earthquakes have occurred in the last century in the

United States. They occurred in:

- San Francisco, 1906 (2000 lives lost).
- Alaska, 1964 (131 lives lost).
- San Fernando, California, 1971 (65 lives lost).
- Loma Prieta (Northern California) 1989 (66 lives lost)
- Northridge (Southern California) 1994 (61 lives lost)

There is no season or yearly cycle of earthquakes occurrence: earthquakes can happen at any time. Major earthquakes appear to occur in cycles of between 50 and 275 years. It is likely that an earthquake will hit California and perhaps other parts of the united states in the next decade or two.

An earthquake may last for seconds or minutes, while aftershocks may occur for months after the main earthquake.

Earthquakes are classified, based on the Richter Scales, as:

- Small: 5.0-5.9
- Moderate: 6.0-6.9
- Major: 7.0-7.9
- Great 8.0 or Greater.

The Richter Scale has a logarithmic base, so each increment on the scale is multiplied by a factor of 10. For example, an earthquake of magnitude 8.6 would not be twice as violent as one of 4.3, but rather would be 10,000 times worse.

Earthquakes (Continued)

Earthquake Safety

It is recommended that you

- Develop a home earthquake plan so that you know what to do during and after an earthquake.
- Conduct earthquake drills with your family or coworkers. Locate safe spots(e.g., under a sturdy table), and identify danger zones(e.g., near window)
- Develop a plan for reuniting all family members after an earthquake occurs.
- Identify an out-of-state contact for family members to phone.
- Keep supplies on hand, including food and water for 3 days, a flashlight with extra batteries, a portable radio, a fire extinguisher, and extra tool.
- Store heavy and breakable objects on low shelves. Weed killer, pesticides, and flammable products should be stored on bottom shelves or in a closed cabinets with latches. Chemicals will be less likely to create hazards if they are stored in lower, confined locations.
- Secure bookshelves, water heaters, and tall furniture to wall studs. Install latches on all cabinets, and anchor overhead lighting fixtures. Secure items that might fall, such as televisions.
- Have a licensed professional install flexible pipe to avoid gas or water leaks
- Move beds away from window.
- Move or secure hanging objects over beds, couches and other places where people sit or lie
- Keep shoes and flashlight under the bed. Keeping shoes under the bed ensures quick access to prevent cutting feet on glass and reduces the risk that glass could fall into them.

You should hire a structural engineer to evaluate your home. Ask questions about home repair and strengthening for exterior features, such as porches, decks, sliding doors, canopies, carports, and garage doors.

Earthquakes (Continued)

To stay safe during an earthquake, you should:

- Drop, cover, and hold. Move only as far as necessary to reach a safe place. Most persons injured in earthquakes move more than five feet during the shaking.
- If indoors, stay there. Many fatalities occur when people run outside, only to be killed by falling debris from collapsing walls. It is safer to stay indoors until the shaking stops and it is safe to exit. When going outdoors, move quickly away from the building to prevent injury from falling debris.
- If outdoors find a spot away from buildings, trees, streetlights, power lines, overpasses and brick walls. Drop to the ground and stay there until the shaking stops. Injuries can occur from falling trees, street lights and power lines or building debris.
- If in a vehicle, pull over at a clear location and stop. Stay in your vehicle with seatbelt fastened until the shaking stops.
- If in a high-rise building, expect the fire alarms and sprinklers to go off during an earthquake, Check for and extinguish small fires. Do not use the elevator.
- If in a coastal area, move to higher ground. Earthquakes often generate tsunamis.
- If in a mountainous area or near unstable slopes or cliffs, be alert for falling rocks and other debris that could be loosened by the earthquake. Also, watch for landslides that could be triggered by the earthquake.

Earthquakes (Continued)

After you have taken care of your self, you should:

- Look for and extinguish small fires: Fire is the most common hazard following earthquakes. Extinguishing small fires and eliminating fire hazard will minimize the risk of a fire getting out of control.
- Clean spills. By cleaning up medicines, bleaches, flammables, and other spills, it is possible to prevent many small but potentially dangerous hazardous-materials emergencies.
- Inspect the home for damage. Aftershocks can cause additional damage to unstable buildings. If there are major cracks in the chimney or foundation or if the home or utilities have been moved by the earthquake, get everyone out of the home. Take photographs of the home and its contents to document insurance claims.
- Help neighbors who may require assistance.
- Tune to the Emergency Alert system(EAS) and FM 89.1 for emergency information and instructions.
- Radio Holders report any info to the Emergency Operation Center, via EOC net or channel 1 on your radio.
- Expect aftershocks. Aftershocks often occur minutes, days or weeks following an Earthquakes. When aftershocks occur, drop, cover, and hold

FIRE



FIRE

Fire is the sixth leading unintentional cause of injury and death in the United States. Fire ranks as the highest cause of death for children under the age of 15 at home.

The danger that fires pose, include:

- Asphyxiation: Asphyxiation is the leading cause of death in a fire, by a 3-to-1 ratio over burns.
- Heat: A fully developed room fire as temperatures over 1,100 degrees Fahrenheit.
- Smoke: Fire generates black, impenetrable smoke that blocks the vision, sting the eyes, and clogs the lungs. It may be impossible to navigate through such smoke.

Fires in the Home

Roughly 85 percent of all fire deaths occur where people sleep, such as in homes, dormitories, barracks, or hotels, The majority of fatal fires occur when people are less likely to be alert, such as nighttime sleeping hours.

Nearly all homes and other building fires are preventable, even arson fire. The majority of arson fires are caused by juveniles, who often respond to counseling, and the rest can be deterred in number of ways.

No fire is inevitable.

In 2000, 3,420 people died in reported home fire in the United States- about 9 people per day. In addition, thousands of people were injured in home fires, many with sever burns.

FIRE(Continued)

Every family plan should include:.

- Smoke alarms on every level of the home and near all sleeping area.
- Two escape routes from every room in the home. Escape ladders should be stored near windows.
- Practice the escape plan at least twice each year. Practice getting out both day and night. Practice escapes should include low-crawl escapes, ensuring that all family members' heads are one to two feet above the floor. As part of escape planning, select a safe area outside the home for the family to gather after escaping the fire. Ensure that all know to meet at that place so, when firefighters arrive, they can be notified quickly of family status.
- Practice alerting family members by yelling "FIRE!" several times. In a real fire, this alert may help family members escape.
- Learn the fire department's emergency number, especially if the community does not have 9-1-1 service. Make sure that all family members know to escape the fire first, then call the fire department from a neighbor's home.

FIRE (Continued)

It is important to discuss with the entire family what to do in a fire. Every family member needs to know what to do in case the entire family is not together when a fire occurs. Also, awareness helps to reduce fear and ensures that all family members know what to do.

If you should see a fire or hear the smoke alarm, you should:

- Yell “FIRE!” several times and exit quickly. Never use an elevator when escaping a fire. Other points to remember include:
 - If escaping through smoke, crawl low, under the smoke.
 - If escaping through a closed door, feel the door with the back of the hand, as well as the space between the door and its frame and the doorknob before opening the door. Never open a door that feels hot.
 - If smoke, heat or flames block exit routes, stay in the room with the door closed. Open the window a few inches at the top and bottom for ventilation, and hang a sheet outside the window so that responders can see it when they arrive. If possible, seal around doors and vents with a wet towel, sheet, or clothes to help keep smoke from the room.
- Go to the agreed upon meeting place, then send one person to call the fire department. Gathering at the meeting place first will quickly indicate who is outside and allow family members to advise firefighters immediately when they arrive.

FIRE (Continued)

It is impossible to escape, you should:

- Stop up areas where smoke could come in using wet towels, sheets, or clothes under the doors and vents.
- Call the fire department and tell them where you are-even if the fire department has already been called.
- Open windows slightly to allow smoke to exit and fresh air to enter the room.
- Stay low and near a window to breathe fresh air.
- Wave a bright-colored cloth at the window to signal the fire department.

To prevent fires you should

- Conduct a home hazard hunt. Many items and conditions around the home can present fire hazards. Taking time to look for and eliminate hazard will reduce the risk.
- Inspect wood stoves and chimneys annually. Burning wood leaves creosote deposits, which are flammable, in the firebox, flue, and chimney. These buildups must be removed professionally to minimize the risk of fire.

FIRE (Continued)

- Purchase heaters only if they have been laboratory tested and approved. Follow the manufacturer's directions for use. Keep blankets, clothing, curtains, furniture, and any other flammable items at least three feet away from heat sources. Plug heaters directly into a wall socket, and unplug them when not in use.
- Keep matches and lighters away from children. Children are fascinated by fire and will play with matches and lighters if they are available.
- Check electrical wiring. And replace frayed extension cords, exposed wire, or loose plugs. Ensure that all outlets have cover plates, and avoid overloading outlets or extension cords.
- Keep combustible materials away from the stove, include towels, clothing, curtains, bags, boxes, and other appliances. Combustible material near stoves can catch fire and quickly while the cooks attention is elsewhere.

These are only a few suggestions for preventing fires. Additional suggestions, including how to select and use fire extinguishers, will be covered in later classes.

FIRE (Continued)

Wildfires

There are three classes of wildfires:

- A surface fire is the most common type of fire and burns along the floor of a forest, moving slowly and killing or damaging trees.
- A ground fire is usually started by lightning and burns on or below the forest floor in the humus layer down to the mineral soil.
- Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees.

Wildfires often begin unnoticed and that many fires can spread quickly, igniting brush, trees, and homes.

Because more people are choosing to make their homes in woodland setting in or near a forest, rural areas, or remote mountain sites, a greater percentage of the population is becoming vulnerable to the hazards of wildfire.

More than four out of every five forest fires are started by people. Negligent human behavior, such as smoking in the forest areas of improperly extinguishing campfires, is the cause of many forest fires.

FIRE (Continued)

Many of the strategies for wildfire preparedness are the same for fires in the home, and that developing a family fire escape plan will be helpful for wildfires as well as fires in the home. In the case of wildfires, some additional strategies are required.

You should:

- Keep a garden hose that is long enough to reach any area of the home and other structures. Buy a ladder that is high enough to reach the roof.
- If a pool, lake or stream is available, consider obtaining a portable gasoline powered water pump.
- Equip chimneys and stovepipes with spark arresters.
- Keep fire tools handy. Fire tools include shovels, rakes, chain or handsaws, buckets, and one or more fire extinguishers.
- Use proper building and landscape design. Wild land fire experts recommend that flammable vegetation be cleared to a distance of at least 30 feet around the home.

Fire (Continued)

Additional strategies for wildfire preparedness include:

- Marking all driveway entrances so that firefighters are aware that the home is there and can find it quickly during a fire.
- Following all local burn laws. Never burn during dry weather or within 75 feet of a structure or combustibles. Never leave a fire unattended. Not even a cigarette.

Despite best efforts, wildfires still occur.

There are several measures that you should take inside the home to prevent damage from wildfire.

Keep in mind the following measures:

- Listen for emergency information on radio or television stations or EAS and 89.1 FM. If advised to evacuate, do so immediately. Delay increases the risk of being trapped by the fire and can interfere with fire department response.
- Confine pets to one room or arrange for them to stay with a friend or relative.
- Move flammable furniture to the center of the home, away from windows and sliding glass doors.
- Close all doors and window to reduce air flow.

If trapped by a wildfire, you should try to find a body of water to crouch in. If possible, cover the head and upper body with wet clothing. If a body of water is not accessible, look for shelter in a cleared area or within a rock bed. Breathe the air close to the ground, preferably through a wet cloth.

FIRE (Continued)

After a wildfire, you should:

- Use caution when reentering the area after a wildfire. Hazard may still exist, including hot spots, which can flare up without warning.
- Inspect the roof immediately and extinguish sparks or embers that could reignite the fire.
- Have propane or heating oil tanks inspected by the supplier before using the system. Tanks may shift or fall from their stands or fuel lines may have kinked or weekend. Heat from the fire may have caused the tank to warp or bulge (especially if the tank is not vented).
- Check the stability of trees around the home. They may have lost stability as result of fire damage. Also, identify and mark ash pits (created by burned trees and stump). Falling into a hot ash pit can cause serious burns.
- If there is no power, check the main breaker. Fire may cause breakers to trip. If the breakers are on and power is still not available, call the utility company.

You should take precautions while cleaning the property following the fire by:

Wetting down debris to reduce dust in the air.

Use a particulate mask with noose clip and coveralls. Wear leather glove to protect the hands.