



Natural Disasters

Tornados

What is a tornado?

A violently rotating column of air that extends from a thunderstorm to the ground. A funnel appears, descending from a cloud. The funnel hits the ground and roars forward with the sound of a freight train.

What causes tornados?

The most violent tornadoes come from supercells, large thunderstorms that have winds already in rotation. Tornadoes form when warm, humid air collides with cold, dry air.

Where do tornados most frequently occur?

These terrible storms occur all around the world, but the United States is a major hotspot with about a thousand tornados every year.

Tornado Destruction

Every year in the United States tornados do about 400 million dollars worth of damage.

On average they kill about 70 people a year. Extremely high winds tear homes and businesses apart. Winds can also destroy bridges, flip trains, send cars and trucks flying, tear the bark off trees, and suck water from a riverbed.



Severe Storms

What is a severe storm?

A thunderstorm is classified as “severe” when it contains hail one inch or greater or winds measuring at 57.5 mph or more.

What causes severe storms?

Three basic ingredients are required for a thunderstorm to form moisture, rising unstable air, and a rising mechanism.

Where do severe storms most frequently occur?

Along the Gulf Coast and across the southeastern and western states, most thunderstorms occur during the afternoon. Thunderstorms frequently occur in the late afternoon and at night in the Plains states.

Severe Storm Destruction

According to the National Severe Storms Laboratory, thunderstorms can cause damage due to high winds, flash flooding from rain and from lightning strikes. Strong thunderstorms can also spawn tornadoes, which can cause massive destruction to personal and business property.



Hurricanes

What is a hurricane?

These storms are rated on a five point scale called the Saffir-Simpson Scale, they are based on wind speed, and devastation toll. They are spiraling tropical storms with at least wind speeds of 74 miles per hour.

What causes hurricanes?

Hurricanes start when warm, moist air from the ocean surface begins to rise rapidly, where it encounters cooler air that causes the warm water vapor to condense and to form storm clouds and drops of rain.

Where do hurricanes most frequently occur?

Hurricanes only develop over the North Atlantic, central Pacific, and eastern North Pacific.

Hurricane Destruction

High winds are a primary cause of hurricane-inflicted loss of life and property damage. Another cause is the flooding resulting from the coastal storm surge of the ocean and the torrential rains, both of which accompany the storm.



Tropical Storms

What is a tropical storm?

A tropical storm is a tropical cyclone that has maximum sustained surface winds ranging from 39-73 mph (34 to 63 knots). A hurricane is a tropical cyclone that has maximum sustained surface winds of 74 mph or greater (64 knots or greater)

What causes tropical storms?

Tropical storms typically form over large bodies of relatively warm water. They derive their energy through the evaporation of water from the ocean surface, which ultimately recondenses into clouds and rain when moist air rises and cools to saturation.

Where do tropical storms most frequently occur?

May occur in any of the Earth's Oceans

Tropical storm devastation

Damage. Tropical cyclones threaten lives and property because of their high winds, associated storm surge, excessive rain and flooding, and ability to spawn tornadoes. As they make landfall, the winds and surge are the main threats



Wildfires

What are wildfires?

A wildfire is simply an uncontrolled fire that is wiping out large fields and areas of land. It is typically fires that started out of a lightning strike, or people carelessly starting it, or accidentally, or even arson, that went un-noticed and got out of hand. These fires sometimes burn for days and weeks.

What causes wildfires?

Wildfires can be human caused, or they can be naturally caused.

Where do wildfires most frequently occur?

Wildfires can occur anywhere, but are common in the forested areas of the United States and Canada. They are also susceptible in many places around the world, including much of the vegetated areas of Australia as well as in the Western Cape of South Africa.

Wildfire devastation

- A Heavy Loss To The Economy Is Incurred.
- Local Heritage Could Be Lost.
- Carbon Sequestration And Storage Is Affected.
- Loss Of Biodiversity.
- High Levels Of Soil Erosion.
- High Levels Of Air And Water Pollution.
- Wildfires Can Lead To The Extinction Of A Species.
- Wildfires Have Adverse Effects On Health.



Earthquakes

What are earthquakes?

Earthquakes are caused by a sudden release of violent ground energy caused either by the shifting of the earth's crust or volcanic/magmatic activity. Most earthquakes occur when two sides of a fault slide past each other. The crust may either be being compressed, pulled apart, moving sideways or a combination of these. The resulting seismic waves are felt as earthquakes

What causes earthquakes?

Earthquakes are usually caused when rock underground suddenly breaks along a fault. This sudden release of energy causes the seismic waves that make the ground shake. When two blocks of rock or two plates are rubbing against each other, they stick a little. When the rocks break, the earthquake occurs

Where do earthquakes most frequently occur?

Most earthquakes occur along the edge of the oceanic and continental plates. The earth's crust (the outer layer of the planet) is made up of several pieces, called plates. The plates under the oceans are called oceanic plates and the rest are continental plates.

Earthquake devastation

Earthquake devastation is catastrophic, lives can be lost, and property destroyed.



Avalanches

What are avalanches?

An avalanche is a mass of snow that slides rapidly down an inclined slope, such as a mountainside or the roof of a building

What causes Avalanches?

An avalanche occurs when stress from the pull of gravity and/or applied load (such as a skier) exceeds the strength of the snow cover

Where do avalanches most frequently occur?

Avalanches most occur on slopes above timberland that face away from high winds.

Avalanche devastation

Asphyxiation is the most common cause of death by an avalanche. People and animals buried deep in the snow suffocate to death due to a lack of oxygen. The force of an avalanche can also break and crush bones easily



Tsunamis

What are Tsunamis?

A tsunami is a series of waves caused by earthquakes or undersea volcanic eruptions.

What causes tsunamis?

A tsunami is a large ocean wave that is caused by sudden motion on the ocean floor. This sudden motion could be an earthquake, a powerful volcanic eruption, or an underwater landslide.

Where do tsunamis most frequently occur?

Tsunamis occur in the Pacific Ocean, Mediterranean Sea, and Caribbean Sea

Tsunami devastation

Tsunamis can cause damage by the force of the wave of water hitting land, and causing debris and mud to slide with it. Huge power outages can occur.



Drought

What is a drought?

A drought is a prolonged period of abnormally low rainfall, leading to a shortage of water.

What causes droughts?

A drought is caused by drier than normal conditions that can eventually lead to water supply problems. Really hot temperatures can make a drought worse by causing moisture to evaporate from the soil. Just because a region is hot and dry doesn't necessarily mean it is going through a drought. Droughts only occur when an area is abnormally dry

Where do droughts most frequently occur?

In the United States, droughts are most likely to occur in the Midwest and the South.

Drought devastation

Drought also affects the environment in many different ways. Plants and animals depend on water, just like people. When a drought occurs, their food supply can shrink and their habitat can be damaged. Sometimes the damage is only temporary and their habitat and food supply return to normal when the drought is over.

