# NATURAL DISASTERS



Divine

## Chapter 1

#### DIVINE'S FACT FILE

#### **EARTHQUAKES**

#### WHAT IS AN EARTHQUAKE

An earthquake is a shaking of the ground caused by the sudden breaking and movement of large sections (tectonic plates) of the earth's rocky outermost crust. The edges of the tectonic plates are marked by faults (or fractures). Most earthquakes occur along the fault lines when the plates slide past each other or collide against each other.

The shifting masses send out shock waves that may be powerful enough to

alter the surface of the Earth, thrusting up cliffs and opening great cracks in the ground and

cause great damage ... collapse of buildings and other man-made structures, broken power and gas lines (and the consequent fire), landslides, snow avalanches, tsunamis (giant sea waves) and volcanic eruptions.

#### WHAT TO DO IN AN EARTHQUAKE

- 1. Stay there
- 2. Move away from buildings so you don't get hurt
- 3. Once in the open, Stay there until the shaking stops.

### **VOLCANOES**

#### VOLCANOES

#### HOW VOLCANOES ARE MADE

When thick magma and large amounts of gas build up under the surface, eruptions can be explosive, expelling lava, rocks and ash into the air. Less gas and more viscous magma usually mean a less dramatic eruption, often causing streams of lava to ooze from the vent.

#### ABOUT VOLCANOES

A volcano is a mountain that opens downward to a pool of molten rock below the surface of the earth. When pressure builds up, eruptions occur.

In an eruption, gases and rock shoot up through the opening and spill over or fill the air with lava fragments. Eruptions can cause lava flows, hot ash flows, mudslides, avalanches, falling ash and floods.

The danger area around a volcano covers about a 20-mile radius.

Fresh volcanic ash, made of pulverized rock, can be harsh, acidic, gritty, glassy and smelly. The ash can cause damage to the lungs of older people, babies and people with respiratory problems.

Volcanic lightning occurs mostly within the cloud of ash during an eruption, and is created by the friction of the ash rushing to the surface. Roughly 200 accounts of this lightning have been witnessed live.

## **TSUNAMIS**

#### TSUNAMI

#### ABOUT TSUNAMI'S

A tsunami is a series of ocean waves caused by an underwater earthquake, landslide, or volcanic eruption. More rarely, a tsunami can be generated by a giant meteor impact with the ocean. These waves can reach heights of over 100 ft.

About 80% of tsunamis happen within the Pacific Ocean's "Ring of Fire."

The first wave of a tsunami is usually not the strongest, successive waves get bigger and stronger.

Tsunamis can travel at speeds of about 500 miles or 805 kilometers an hour, almost as fast as a jet plane.

The states in the U.S. at greatest risk for tsunamis are Hawaii, Alaska, Washington, Oregon, and California.