

AVALANCHES

AN AVALANCHE —

is a mass of loose snow or ice which slides rapidly down a mountain slope.



An avalanche can hit you with the force of up to 50 tons per square metre. The force of 3 tons per square metre will knock down a wooden building and the force of 10 tons will uproot trees. An avalanche may travel at speeds varying from 25 to 75 metres per second.

An avalanche is accompanied by a deafening noise and is preceded by a solid air wave which causes destruction and suffocation.

The most dangerous slopes are those which incline at an angle of over 20 degrees.

Towns in the mountainous regions of the Kola peninsula, the Northern Caucasus, the southern area of Western Siberia, Eastern Siberia the Far

East and Sakhalin are all prone to avalanches.

SAFETY TIPS:

- PREVENTION TIPS:**
- try not to go into a mountainous region following a heavy snow-fall;
 - try not to walk on snow-covered mountains in the morning and even then exercise extreme caution;
 - in mountainous areas which are liable to avalanches pay particular attention to weather forecasts and local radio reports.

- throw away all your things and lie down flat;
- cover your nose and mouth with a glove or scarf to avoid suffocation;
- if caught inside the snow move your arms and legs in a swimming motion to stay on the surface;
- try to clear the snow in front of your face to help you breathe;
- don't panic – have faith that help is on its' way;
- don't fall asleep;
- nurse your strength.

TIDAL WAVES (TSUNAMIES)



TIDAL WAVES —

are usually caused by an earthquake on the ocean bed.

SAFETY TIPS:

- seismic monitoring of the ocean bed and coastal areas;
- warn the public and city authorities of the imminent approach of a tidal wave;
- evacuate the populace to a safe area;
- build break-waters;
- escort ships out of ports and into the open sea.

Tidal waves are a result of earthquakes, volcanic eruptions, landslides or nuclear explosions. They are immensely powerful and travel at great speed. As it approaches the shore the wave grows significantly bigger and destroys everything on the

coastline. A tidal wave can vary in length from 150 to 300 kilometres and can reach up to 50 metres in height as it approaches the shore. The average speed of a tidal wave is from 50 to 1,000 kilometres per hour. They usually occur in the Pacific Ocean. In Russia the risk areas are the Kuril Islands, Kamchatka and Sakhalin.

VOLCANIC ERUPTIONS

VOLCANOES

occur as a result of geo-physical processes in the bowels of the earth. Active volcanoes in Russia are located in Kamchatka and the Kuril islands.

SAFETY MEASURES:

- on-going monitoring by specialised stations;
- a reliable early warning system for the public and for local authorities;
- prohibit the construction of industrial facilities, living quarters, roads and rail-roads near the foot of volcanoes. Also prohibit the use of explosive devices near volcanoes.



Lava flows, volcanic rock falls, mudflows, flash floods, and volcanic clouds and gases erupting from the volcano all represent dangers.

Large volcanic rocks can be thrown to a distance of several kilometres from a volcano's crater.

Volcanic ash settles up to hundreds of kilometres around the volcano. It contaminates the atmosphere and may

even influence the weather and the climate.

Town dwellers who live in the vicinity of volcanoes should be aware of evacuation plans and routes.

On hearing a warning of an imminent volcanic eruption one should immediately quit the building and go to the nearest evacuation point.