

WHERE DO VOLCANOES OCCUR ON THE EARTH?

Summary

The substantial disruption to air traffic resulting from several volcanic eruptions during the last two years has focused society's attention on volcanoes. Many are asking the questions: are we safe? is the present situation anomalous? Every year roughly 60 eruptions take place on Earth and the last two years were no exception to the rule. Geologists understand very well where we can expect volcanoes to appear. The answer is given by plate tectonics, a

scientific theory that describes the large scale motions of the Earth's lithosphere. Geological settings named subduction zones, rift zones and hotspots are where volcanoes are formed. The paper gives a short description of these environments and shows the connections between tectonic setting and magma budget and productivity, and between tectonic setting and frequency of eruption.