

Electromagnetic Nature of Unusual Phenomena Before Earthquakes and their Use for Short-Term Warning

Motoji IKEYA, Department of Earth and Space Science, Graduate School of Osaka University, 1- Machikaneyama, Toyonaka, Osaka 560-0043

More than three million people were killed by earthquakes in the world during the 20th century. After the recent earthquakes at Kobe(1995), Turkey(1999) and Taiwan (1999), survivors reported to have witnessed various mysterious phenomena such as unusual animal behavior, lightning, formation of peculiar-shaped clouds and malfunctioning of home electric appliances before the earthquakes. Do these reflect mass hysteria or obsession relating superstitions especially in Eastern culture or wishful afterthought under stress of natural disaster? Should studies of these earthquake precursors be treated as paranormal science like those of UFO and cold fusion? If not, what do these animals detect, why do they react unusually, and why did lightning, clouds and other happenings occurred?. Can one predict earthquakes and save people with these precursors? I have tried to elucidate whether there is any physical basis in such earthquake legends and stories by means of electromagnetic simulation experiments in my laboratory. Intense pulses of electromagnetic waves are generated and caused these incredible stories about which scientists are always skeptical. A video film of simple experiments, which are educational to high school pupils and students in science course, will be presented to elucidate the phenomena scientifically. Proposals are made to reduce casualties of earthquakes by using these phenomena against the world trend of "negative thinking" by seismologists, i.e., "impossibility of a short-term earthquake prediction".