

## **SUNQUAKES AND EARTHQUAKES ARE RULED BY THE SAME PHYSICAL MECHANISM:**

### **Abstract**

Understand quake science, and then you can pinpoint with very high accuracy the location of an earthquake before it actually happens.

Sunquake, earthquake or any quake within a celestial body is the result of the increase in a localized electromagnetic pressure. Quakes can happen at any depth of the celestial body. For instance, moonquakes take place at distance between 600 Km and 1000 Km below the lunar surface. With regard to Earth, the strongest deep-focus earthquake in seismic record was the M 8.3 Okhotsk Sea earthquake that occurred at a depth of 609 Km in 2013, while the deepest earthquake ever detected struck 751 Km beneath Japan in 2015 with magnitude intensity of 7.9. Note that, previously geophysicists and geologists believed that earthquakes at such depth are impossible.

On the other hand, Sunquakes also take place at deep depths. Look at the following link <https://www.universetoday.com/149569/the-mystery-of-sunquakes-is-deep-one-million-meters-deep/> and I would like to bring to your attention, that according to my understanding, sunquake is clear evidence the Sun is a condensed matter and it has both a liquid surface and a solid core. That is because without these basic properties sunquakes and solar tsunami are absolutely impossible to happen. Anyway, in my comprehensive research work about the Sun which has been under preparation for many years, the issues of sunquakes and solar tsunami are explained in extensive details.

However, in physics reality, the sudden slip of fault is not the primary cause of an earthquake, but rather the consequence. In other words, the sudden slip is the result of an increase in the electromagnetic pressure. Electromagnetic pressure is the mechanical pressure exerted upon a real surface due to the exchange of momentum between the object and the electromagnetic field. And, bear in mind that the electromagnetic pressure within a celestial body is not uniform, but varies enormously. In case of the Earth, the seismically active regions are the ones

that possess the highest values of electromagnetic pressure. At the same time, those regions have the highest response to the increase of magnetic pressure.

Nevertheless, I believe that an earthquake can be controlled at the atomic scale and detected before it actually happens by observing localized changes in the magnetosphere using advanced satellite integrated systems. Specifically, the integrated detection system must include the measurement of the fluctuation of the electron density at the ionosphere. That is because the energy increase at the ionosphere is the first event that leads to the increase of the localized electromagnetic pressure on the surface of the Earth. On the other hand, an integrated system of monitoring sensors can identify the region that will experience an increase in electromagnetic pressure within the next 48-72 hours.

**Promotion of revolutionary science which is based on empirical evidence, not theoretical fantasies, is the only thing that can solve the biggest crises facing us today, like the current energy crisis and raising political tension. Moreover, progress in real science can save us from the most horrific disasters, and at the same time leads us to understand the true physics of the Universe and life at its most fundamental level.**