



## **The geodynamics of earthquakes are generating tsunami.**

**B.B. Kapochkin**, N.V. Kucherenko, A.B. Kapochkina

Odessa State Environmental University, tsb1@mail.ru

Less than 10% strong sea earthquakes forming a tsunami. The theory of formation of the tsunami, based on effect of compressibility of water (B.Kapochkin N.Kucherenko " The physical model of generation of tsunami " IAMAS-IAPSO ' 97) is considered. Often tsunami formed earthquakes with small depth hypocenter in subduction areas. Usually here deep earthquakes are fixed. Global geodynamic processes with 1996 on 2006 are studied. In 1996 is fixed the maximal number of a tsunami. In 1996 the minimal angular speed of rotation of the Earth is fixed. During such periods the Earth has the maximal volume. The quantity of strong earthquakes minimally and not strong is maximal. In 1996 the maximum quantity of earthquakes with depth hypocenter less than 30 km was observed. During the subsequent period there were important changes of geodynamic conditions of global scale. Angular speed of rotation of the Earth increases, volume of the Earth decrease. In 1998 the form of the Earth has changed. In 1998-1999 quantity of earthquakes with depth hypocenter less than 30 km is minimally. In 1999-2002 quantity of a tsunami minimally too. From 1998 to 2005 the number of earthquakes with depth hypocenter more than 200 km has increased. In 2003-2005 the maximum of earthquakes with depth hypocenter less than 30 km is fixed. In 2004-2005 the maximum of earthquakes with  $M > 5$  is fixed. In 2004 a maximum quantity of a tsunami is fixed. Data of geodetic measurements show on an opportunity to slide an earth's crust on astenosphere. Such geodynamic conditions are dangerous occurrence of earthquakes with small depth hypocenter in zones of oceanic depression (zones subduction). An example of such movements earthquake 26.12.04. The nature of this earthquake it twist fluctuations of the Earth. Twist fluctuations it is fast displacement of Northern hemisphere concerning the Southern hemisphere (Yu. Barkin 2006). The mechanism of such earthquakes - horizontal shift in a zone subduction without subduction. The important geodynamic dates are astronomical dates

on December, 22, on March, 22, on June, 22, on September, 22. The tsunami 23.06.01 are considered. Its reason fast horizontal movement of a tectonic plate. It is fixed by geodetic measurements. In the report the example of temperature anomaly of a sea surface along the Kurilo-Kamchatka subduction zone (length 1000 km) in connection with a tsunami 25.09.2003 is resulted. After unprecedented geodynamic processes 21.09.2006 (fast spreading in Ethiopia) global geodynamic conditions have changed.