

## The roll of earthquake prediction for 'Safety and Calmness': Case study for the 2001 slow event in Tokai region.

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<http://www.seis.nagoya-u.ac.jp/STAFF/ymok/nns1/nns1.html>

On July 16, 2001 Geographical Survey Institute announced that anomalous deformation was detected by GPS network and was still going on in Tokai region. This deformation was interpreted as a slow slip between subducting Philippine Sea slab and overriding crust of Japan. Most of seismologists were worried about the possibility for a large earthquake as well as being just interested in. This is the first time in the world that a slow slip is detected while it is going on, indicating the possibility for a big earthquake is impending. In this kind of case it is important to make it public and explain the possibility and uncertainty of a big earthquake. This kind of announcement is, in most case, difficult since the reports by media can be sensational. Generally most researchers become prudent and, as a result, important information cannot be transferred to citizens. To avoid misleading long and careful explanation is necessary for the mass media, which will be difficult in case of emergency.

### NSL (Network for saving life)

A group named NSL was organized in Nagoya for earthquake researchers and mass media in April 2001. It was organized by Yasuhiro Suzuki (Aichi Prefecture Univ.), Nobuo Fukuwa (Nagoya Univ.) and myself. This group was established for improving the tolerance of a large city against earthquake hazards by informing the knowledge of earthquake and earthquake hazards. The group is composed of journalists and researchers who are involved in earthquake science and technology. We have a meeting almost one a month since its establishment, and mainly treated large earthquakes occurring along Nankai trough. The important agreement among the members is that the journalists should not write a report without hearing the opinion of researchers in another appointment.

This kind of meeting is proved to be useful for an appropriate information transfer by mass media. For example when the slow slip in Tokai region was reported the Chunichi News Paper and a news media in Tokyo write with a quite different impression. What we wanted to inform is that the slow slip has a little possibility for an imminent big earthquake which may occur in 2002. The Chunichi NP, who is one of the members of NSL, reported that though the possibility for a big earthquake is low the crustal movement should be watched. A newspaper in Tokyo reported that there is large possibility of earthquake in 2002 with little possibility for stopping slow slip without earthquakes.

### Now

The anomalous crustal movement is now slowing down. A detailed analysis shows that the accelerating deformation followed power law only until June 2001. This fact indicates larger possibility for ending the anomalous deformation as a slow slip.