A very dense GPS array network has been constructed in the Tokai area in central Japan, where a big earthquake has been pointed out to occur in the near future. An anomalous tectonic movement was detected between the fall of 2000 and the summer of 2005 from GPS observation data. This fact indicates that a slow slip event progressed on the plate boundary beneath Lake Hamana. Matsumura (2007) specified asperity areas in the presumed fault of the Tokai earthquake based on the seismic activity change due to the slow slip event. We processed their GPS data during three years since January 2004 to divide the processed duration to two periods; one is the slow slip occurrence period before July 2005 and the other is after August 2005, and got a detailed distribution of dilatation. Asperity areas were verified through the results of the dilatation distribution. On the other hand, swarms of deep long period tremors sometimes occur on the surface of the subducting Philippine Sea Plate near this GPS array. Tilt and volume changes accompanied with the swarms were observed, but the amount of the expected displacements were too small (maybe sub-mm level) to observe by GPS. We cannot see the displacements at GPS stations referring to the IGS stations. However, after reducing the average positions of all stations in the area concerned, we could obtain the displacements about 1mm or less accompanied with the swarms.