

## GPS observation by MRI in Tokai and southern Kanto area

# Takeyasu Yamamoto[1]; Akio Kobayashi[1]; Sumio Yoshikawa[1]

[1] MRI

We have carried out GPS continuous observations at MRI's Tsukuba site (MTKB) and six tide gauge stations in Tokai and southern Kanto area.

We executed first a baseline analysis which refers to IGS Tsukuba site (TSKB) in order to evaluate coordinates of MTKB. The evaluated relative position of MTKB rises in the summer with the amplitude of 1-2 cm. This seasonal variation is thought to be caused by those of TSKB because the characteristic of the seasonal variation of MTKB to TSKB is similar to that of GEONET sites. Difference in the seasonal variation between MTKB and TSKB shows that this variation is a local phenomenon.

In the next step, we evaluated the positions of six GPS sites in Tokai and southern Kanto area which refer to MTKB. Comparing the evaluated coordinates with those of the nearest GEONET site, differences are seen in seasonal variation of N-S and U-D components. We think that difference of U-D component is affected by the difference of the seasonal variation of each reference site in Tsukuba. It seems that difference of N-S component corresponds to a scale error of horizontal coordinate of the GEONET site.