

Approach to accurate electromagnetic observations in Tokai region

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An accurate electromagnetic observation system could be applied to not only passive monitoring but also active monitoring like EM-ACROSS. We have worked on the development of such integrated observation system in Tokai region. As the first step, we investigated and improved existing observation stations in order to use them for the active monitoring by EM-ACROSS. Examples of those stations are Shimizu-Hokubu station of Tokai University and Tawaramine station of ERI, University of Tokyo in Shizuoka. The major improvement of the observation systems in these stations was to introduce accurate clock and fast data sampling. As a consequence, the transmitted signals were successfully observed in the measurements of the magnetic and electric fields up to 20 km from the transmitter in Shizuoka University. A set of reliable components of transfer function was also obtained by the stacking. We will here show the improvement of the observation systems, and present future prospects of the accurate electromagnetic observation in Tokai region.