Preface

Two and a half years have passed since the 2011 off the Pacific Coast of Tohoku Earthquake (hereafter, the 2011 Tohoku earthquake). The importance of a disaster-resilient country is emphasized in various aspects of the Japanese society, as noted in the final report (July 31, 2012) of the Committee for Policy Planning on Disaster Management organized in the Central Disaster Management Council. The Active Fault and Earthquake Research Center (AFERC) will be reformed at the beginning of the April 2014. We are now preparing organization of a new geology-based institute for disaster mitigation research. The present AFERC started 5 years ago with two research themes: 1) Advancement of techniques for active faults evaluations and earthquake hazard assessment, and 2) Advancement of techniques for forecasts of subduction zone earthquakes and tsunami generations. Researchers in geology and geophysics are expected to cooperate closely to reduce uncertainties in evaluations and forecasts. This kind of collaborative research was shown unintentionally, following the 2011 great Tohoku earthquake, to be effective for estimation of future earthquake disasters through our study on the 869 AD Jogan earthquake. We will conduct more advanced research in the new organization under recognition of societal expectations for AIST earthquake research.

The present volume contains 8 reports based mainly on activities of the AFERC in 2012. Among them, the following studies are supported by external funds contracted by MEXT (the Ministry of Education, Culture, Sports, Science and Technology-Japan) for paleoearthquake and related studies on 6 fault zones: the Sarobetsu Fault Zone (Hokkaido, Japan), the Takayama-Oppara Fault Zone (central Japan), the Nobi Fault Zone (central Japan), the Yanagase-Sekigahara Fault Zone (central Japan), the Nunobiki-sanchi-toen fault zone (central Japan), and the Nishiyama fault zone (western Japan). The Chiba University group also reports results of shallow marine seismic surveys off the southern part of Boso peninsula (central Japan).

We welcome comments from readers on the contents of this report, and on ways to publicize the results of our surveys and research. Finally, we would like to express our sincere gratitude to land owners, local communities and municipality that allowed us to work on private properties.

Yukinobu Okamura
Director, Active Fault and Earthquake Research Center
Yasuto Kuwahara
Deputy Director, Active Fault and Earthquake Research Center

October 28, 2013