Preface

Geological Survey of Japan, a part of the National Institute of Advanced Industrial Science and Technology (AIST), is conducting surveys and research on active faults and paleo-earthquakes. This project was initiated after the 1995 Kobe earthquake, and carried out by former Geological Survey of Japan until 2000. Since 2001, Active Fault Research Center (AFRC), one of the research units of AIST, plays the central role in GSJ for this project. Year 2004 was the last year of the first medium-term period (2001-4), hence the last year for research goals on surveys and evaluation of active faults in Japan, mechanism of segmentation, earthquake hazard assessments in Kansai area, estimation of submarine earthquakes recurrence around Japan, and urgent surveys and studies of earthquakes that occurred in the medium-term period.

Results of our surveys and research on active faults and paleo-earthquakes have been publicized in various forms. They are peer-reviewed papers in domestic and international scientific journals, publications from Geological Survey of Japan such as "Rupture Probability Map of Major Active Faults in Japan (2005)", database as a part of Research Information Database (RIO-DB) such as Active Fault Database, or websites of AIST, GSJ and AFRC. These are summarized in *Annual Report of the Active Fault Research Center*.

This report, *Annual Report on Active Fault and Paleoearthquake Researches*, aims to report the survey and research results of previous year in timely fashion yet with details. All the results supported by tax money will be published; they include descriptions with photographs and sketches of all the trench walls, all the results of dated materials, processed images of seismic reflection surveys, descriptions and sketches of boring cores and analysis results, results of computer simulations for all the cases of earthquakes and tsunamis. In order to publish more details than scientific papers, we do not limit pages and use colors for all the figures. In addition, progress reports and preliminary results will be also published. To maintain the quality, editorial board consists of team leaders review all the reports.

This volume contains 16 reports. Among them, survey results for Ayasegawa fault (Saitama), Tachikawa fault (Tokyo), Sone-kyuryo fault zone (Yamanashi), Ohchigata fault zone (Ishikawa), Ushikubi fault (Toyama), Mannami-toge fault (Gifu), Oharako fault (Yamaguchi) are the results of project for study of active faults at AFRC. Study of Komachi-Ohdani lineament system was a project of Research Center for Geological Environments. Geoslicer-survey in Boso Peninsula is a result of project on subduction-zone earthquakes at AFRC. Studies of subsurface structure for Yufutsu plain by microtremer arrays and for Osaka city by PS logging are the results of AFRC project on earthquake hazard assessment. Studies on the model of Mid-Niigata Prefecture earthquake and surveys for Sumatra-Andaman earthquake and tsunamis were carried out as a part of urgent study of earthquakes. The surveys were supported by funds from Ministry of Education, Culture, Sports, Science and Technology. The reports are organized in geographical order from North to South.

We welcome comments from readers on the contents of this report, and the 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 municipalities that allowed us to work in private properties. We also thank those who helped us in the fields.

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