

## Preface

The active fault survey as a national project since the 1995 Hyogoken-nanbu earthquake has been conducted for 13 years and, about 110 active faults have been surveyed. Unfortunately, several destructive earthquakes occurred in this century, and none of them were caused by rupture of the surveyed 110 active faults. This indicates that there are many active faults that have not been surveyed and further survey is necessary, and also suggests that we need to consider evaluation of smaller active faults to decrease damages by earthquakes effectively. In this situation, the Active Fault Research Center will be reformed at the beginning of the 2009 fiscal year.

This report, Annual Report on Active Fault and Paleoequake Researches, is published by GSJ and aims to report the survey and research results of previous fiscal year in timely fashion yet with details. Currently, 2000 copies are printed and distributed to related organizations or individuals. All the results supported by public funding will be published; we do not limit pages and use colors for all the figures. In addition, progress reports and preliminary results are encouraged. To maintain the paper quality, editorial board consists of AFRC team leaders arranged internal peer review for all the reports.

In 2007, AFRC carried out various kinds of surveys and research with external funds from Ministry of Economy, Trade and Industry, Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan Nuclear Energy Safety Organization (JNES), with competitive funds such as Special Coordination Funds for Promoting Science and Technology or Grants-in-Aid for Scientific Research (KAKENHI), and collaboration with private companies. In addition, we also made fundamental research on active faults, seismotectonics, recurrence of subduction-zone earthquakes and earthquake hazard assessments with internal funds from AIST. The results of such surveys and research have been publicized in various ways, such as peer-reviewed papers in domestic and international scientific journals, newsletter or websites of AIST, Geological Survey of Japan or AFRC. Among them, the active fault database is now a part of Research Information Database (RIO-DB) at AIST and has been constantly improved.

This volume contains 14 reports. Among them, geo-slicer survey on Ishinomaki plane (Miyagi prefecture) was supported by JNES. Paleo-tsunami studies in Ishinomaki and Sendai plains (Miyagi prefecture) were a part of the intensive observation program of MEXT. Construction of velocity structure of the Nobi plain (Aichi, Mie and Gifu prefectures) and Oita plain (Oita prefecture) were a part of study on long-period ground motion supported by METI. Paleoseismological surveys on Shonai-heiya-toen fault zone (Yamagata prefecture), Kozu-Matsuda fault (Kanagawa prefecture) and Yamazaki fault zone (Hyogo and Okayama prefectures) were results of additional survey projects for fundamental surveys of 98 active faults in Japan, contracted by MEXT. Paleoseismological survey in Otagawa lowland (Shizuoka prefecture) was supported by KAKENHI, and the fault rupture study by using dynamic simulation was collaboration with a private company. Other surveys and research, that is, subsurface structure on Kazo and Arakawa lowland (Saitama prefecture), paleoseismological surveys in Ukishima-ga-hara lowland (Shizuoka prefecture), paleoseismological and paleo-tsunami surveys in Kii and Shima peninsulas are supported by internal funds of AIST.

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.

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