

Research on the stagnant slab by long-term BBOBS and OBEM arrays

Hajime Shiobara[1]; Tada-nori Goto[2]; Hiroko Sugioka[2]; Kiyoshi Baba[3]; Hitoshi Kawakatsu[4]; Azusa Shito[3]; Takeo Ichikita[5]; Claudia Adam[2]; Masahiro Ichiki[2]; Takao Koyama[3]; Toshihiko Kanazawa[6]; Hisashi Utada[3]

[1] OHRC, ERI, Univ. Tokyo; [2] JAMSTEC; [3] ERI, Univ. of Tokyo; [4] ERI, Univ of Tokyo; [5] TIERRA TECNICA Ltd.; [6] ERI, Tokyo Univ

To investigate the stagnant slab beneath the northern Philippine Sea, we have started a large scale array and 3 years long observation in 2005 by using 12 broadband ocean bottom seismometers (BBOBS) and 11 ocean bottom electro-magnetometers (OBEM). It is a key part of the Stagnant Slab Project started in 2004 for 5 years, because of the first direct dense observation above this target to reveal the fine physical structure of the stagnant slab. And, the transition of the slab morphology along the Izu - Ogasawara (Bonin) - Mariana arc shown by a global tomography is also an interest to be resolved with high resolution by this experiment.

The first deployment cruise was performed with the R.V. Kairei (Jamstec) during 5-26 Oct. 2005, and we could visit all 18 stations planned. Both of BBOBS and OBEM have been used in several long-term experiments with high reliability. In this presentation, we introduce the purpose of this experiment, whole plan of 3 years long observation, details of BBOBS and OBEM, expected results by simulations, and the last cruise.