

## Reprocessing of 1988-90 Seismic Reflection Data of the Beppu Bay and the Bungo Strait : A new attempt

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A big project of geophysical explorations was conducted in the Beppu bay and along the Bungo strait from 1988FY to 1990FY in collaboration with all sections of Geophysical Department, Faculty of Science, Kyoto University. The project was originally planned as a succession of the paleoenvironmental research promoted by late Professor Horie in the Lake Biwa (Horie ed., 1987; 1991). The geophysical explorations of the project were organized by several techniques; marine seismic reflection with air-gun shots in the Beppu bay and along the Bungo strait, seismic reflection along the coastal road of the Beppu bay with vibroseises, gravitational survey at sea-bottom etc. Both data acquisition and processing of the explorations were made by JGI, a subsidiary of JAPEX. Their results were reported in Yusa et al. (1992). However a severe problem remained unsolved in the seismic reflection survey. Multiples were not suppressed satisfactorily in the seismic reflection profiles, because the length of a streamer cables was restricted to be within 664 m in the bay, and 1473m in the Bungo strait, in order to avoid disturbing coastal fishery and sea routes. More efforts were necessary for suppressing multiples and improving the profiles.

The first attempt was made by reprocessing the original data in 1998, then reported in "8th International Symposium on Deep Seismic Profiling" (Ikawa et al., 1998). As a new reprocessing has been done, its result is presented in this poster. These efforts will surely provide improved profiles that contribute not only to the research of crustal structures in the Beppu bay, but also to wide areas of earth science.

Keywords: Beppu bay, Bungo strait, marine seismic reflection, multiple, reprocessing