

## Wide angle seismic experiments in the Western Pacific in 2007 (2)

# Mitsuhiro Oikawa[1]; Azusa Nishizawa[2]; Kentaro Kaneda[3]; Yasutaka Katagiri[4]; Naoko Watanabe[5]; Yukihiro Kato[4]

[1] JCG; [2] Hydrogr. & Oceanogr. Dep., JCG; [3] HODJ; [4] Hydrographic and Oceanographic Dept. of Japan; [5] Hydrographic and Oceanographic Dept., JCG

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Hydrographic and Oceanographic Department, Japan Coast Guard, conducted wide-angle seismic and single-channel reflection experiments by S/V Shoyo and S/V Takuyo in 2007, in the sea area of the southern Kyushu-Palau Ridge, the southern Oki-Daito Ridge, Minami-Tori Shima and CBF Rift. A total of 232 Ocean Bottom Seismographs (OBS) was deployed with an interval of every 5 km on the survey lines, of a total length of 2,230 km. We used a non-tuned 6,000 inch<sup>3</sup> airgun array every 200 m (90 sec) firing for refraction experiments and a non tuned 3,000 inch<sup>3</sup> every 50 m (20 sec) firing for multi-channel reflection experiments.

### The southern Kyushu-Palau Ridge area

A survey line was set across the thickest part of the southern Kyushu-Palau Ridge area to confirm an existence of a middle crust ( $P_v = 6.0-6.3$  km/s).

### The southern Oki-Daito Ridge area

JCG conducted reflection seismic experiments to clear formation models of a bathymetric high located south to the Oki-Daito Ridge.

### The Minami-Tori Shima area

Many small knolls (100-500m in height) are scattered in the area southeast to the Minami-Tori Shima. A crustal structure of the small hills gives a valuable clue to estimate its formation process.

### The CBF Rift area

CBF Rift is a remnant of a spreading center located in the central West Philippines Basin. Around CBF Rift, ocean core complexes are located. Three seismic experiments were carried out to construct a crustal structure model of CBF Rift and ocean core complexes.