

**P-wave structure model of the small knolls around Minami-Tori Shima**

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Our former wide-angle seismic experiments conducted on the West Pacific Basin have revealed the structure model of seamounts scattered around Minami-Tori Shima. These models provide valuable information to estimate a formation process of the seamounts, which may have been generated by mantle plume activity. Besides these seamounts, small knolls are observed as a trail of igneous activity in this region. We focused on the knolls, possibly originated by other igneous process, and carried out wide-angle seismic experiments with ocean bottom seismographs (OBS) on two survey lines cutting across it.

The obtained structure model of the small knolls shows that crustal thickness of the knolls is similar to that of the surrounding oceanic floor. However, P-wave velocities in the lower crust and the uppermost mantle under the knolls are slower than those under the oceanic floor. This difference of P-wave velocity may be caused by regional igneous process.