Source Region of the Low-frequency Earthquakes revealed by Tomographic Imaging

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We used local P and S phases to determine the three-dimensional P-wave, S-wave and Vp/Vs structure for the region of Bungo channel and western Shikoku in Japan. The velocity model clearly images the high velocity subducting slab and we can see the spatial relation to the low-frequency earthquakes. The low-frequency earthquakes were occurring close to the plate interface in the western Shikoku. However, in adjacent area to the west on the Bungo channel area indicating that low-frequency earthquakes are not occurring on the plate interface, but instead in a region of high Vp/Vs that is located above the subducting plate.