

Supplementary material for:

## Post-critical *SsPmp* and its Applications to Virtual Deep Seismic Sounding (VDSS)–1: sensitivity to lithospheric 1D and 2D Structure,

Geophysical Journal International, 2018, doi: 10.1093/gji/ggy307

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This supplementary material contains one figure:

**Figure S1:** Synthetic waveforms computed with the same sedimentary basin but different CMB depth to show the time separation between *SsPbp* and *SsbPmp*.

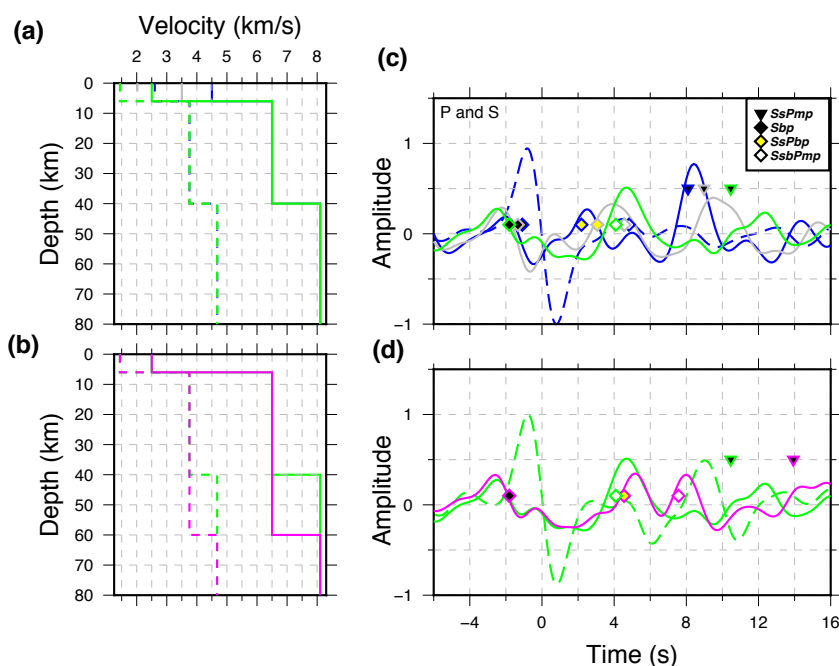


Figure S1. (a): The same as Fig. 10b. (b):  $V_p$  and  $V_s$  models with the same sedimentary layer thickness (6 km),  $V_p$  (4.5 km/s) and Poisson's ratio (0.25), but with CMB depth increased from 40 km (green curve) to 60 km (magenta curve). The green model is the same as the green one in (a). (c): The same as Fig. 10f. (d): Solid curves: P-component synthetic waveforms calculated from velocity models in (b) and colored as in (b). Dashed green curves: S-component synthetic waveforms computed with the green model in (b).