

Supporting Information

3D Body-Wave Velocity Structure of the Southern Aegean, Greece

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Introduction

This supporting information provides additional figures that show the horizontal and vertical checkerboard tests across the selected cross-sections. In this file, we present the results of the synthetic modeling. Synthetic travel times were computed for the same source-receiver pairs as used in the final iteration of the real data inversion. At this step, we used the bending algorithm which is briefly described in the methodology section. The execution of this sub-program conducted the tracing of the rays in the synthetic 3D model. The travel times were perturbed by random noise with a magnitude that has a similar variance reduction as the experimental data inversion. When starting the recovery of the model, we "forgot" about the true velocity model and perturbed the locations of sources. Then, we conducted the same inversion procedure as the experimental data analysis, starting from the sources' absolute locations in the starting 1D velocity model (Figure 5 in the manuscript).

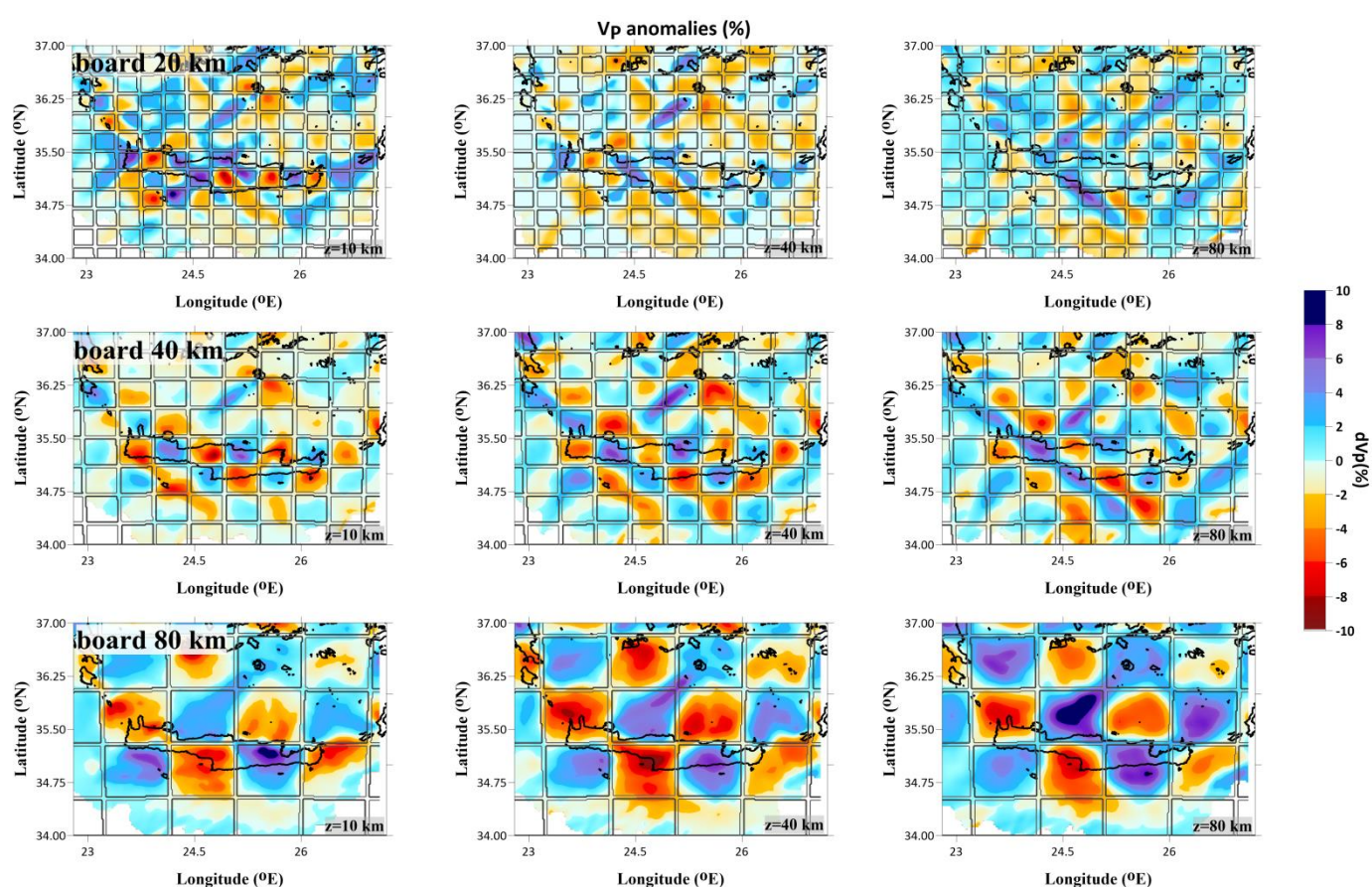


Figure S1. (11). Reconstruction of P-wave anomalies for the depth slices of 10, 40, and 80 km and cell size of 20 (upper panel), 40 (second panel), and 80 km (third panel).

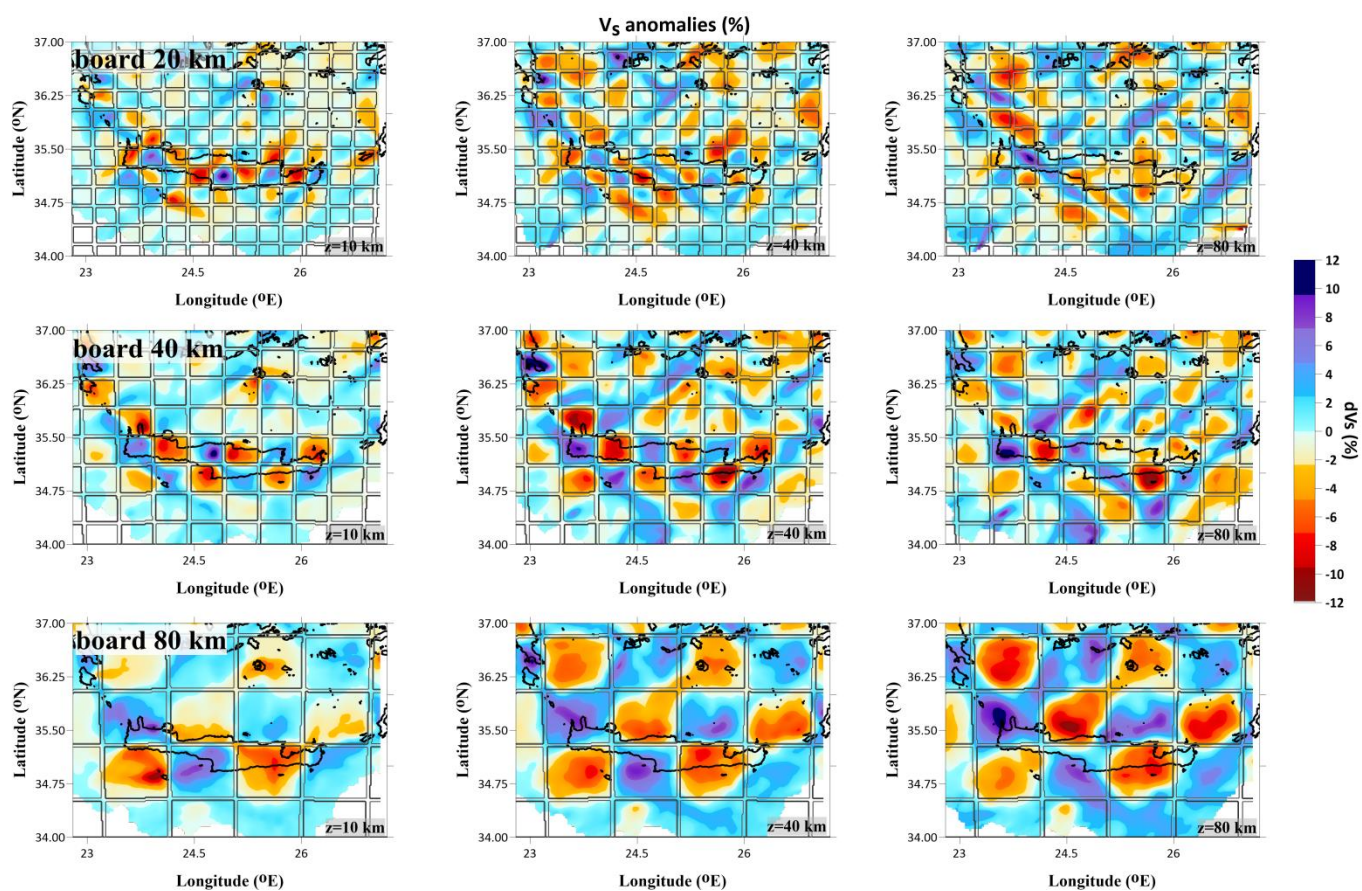


Figure S2. (12). Reconstruction of S-wave anomalies for the depth slices of 10, 40, and 80 km and cell size of 20 (upper panel), 40 (second panel), and 80 km (third panel).

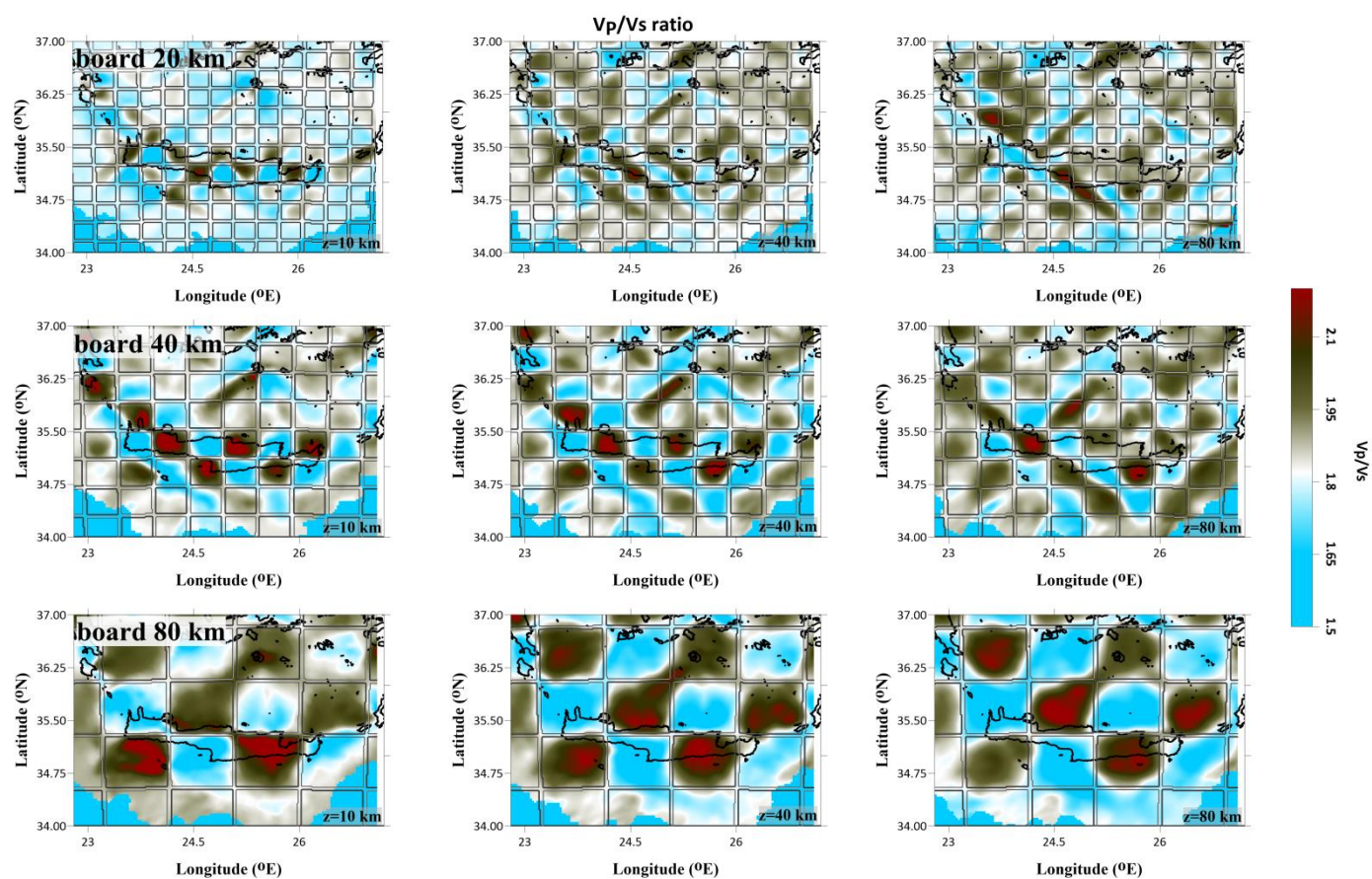


Figure S3. (13). Reconstruction of V_p/V_s ratio for the depth slices of 10, 40, and 80 km and cell size of 20 (upper panel), 40 (second panel), and 80 km (third panel).

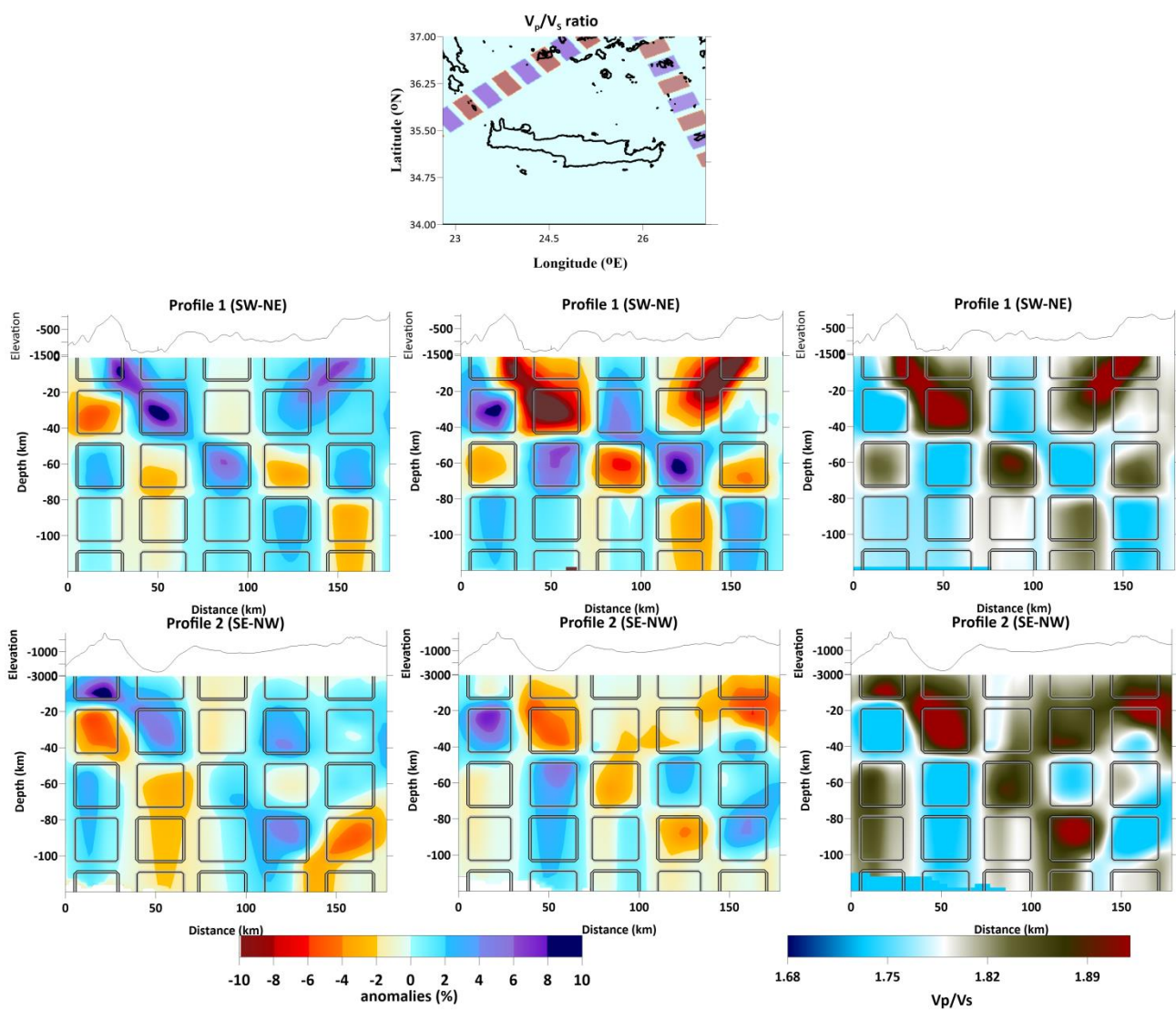


Figure S4. Checkerboard tests for checking the vertical resolution. The locations of the initial synthetic anomalies are indicated with rectangles of 20x20 km².