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# RSTT Development in Australia

The first RSTT model for Australia has been developed using in-depth seismic velocity information from the region. The model is primarily based on the Australian Seismological Reference Model (AuSREM) that was released in late 2012. The densely-grided P and S wave velocity distributions of the crust and upper mantle of AusREM have been simplified and translated into the 7 layer crustal and upper mantle RSTT model. The locations derived from the new model are evaluated against a groundtruth dataset, consisting of earthquakes, mine explosions, and single shot explosions. A comparison is also made to the location of these events computed from full 3D travel times through the AuSREM model, to illustrate some of the inherent issues with a simplified method like RSTT. Australia has a potential wealth of groundtruth data to validate and improve the models for Australia. The current status of groundtruth data collected and plans for its augmentation are described.

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