

## Variations in Basement Topography and Sediment Type in the eastern Nankai Trough, Kumano Basin region

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Variations in the incoming basement topography and overlying sediments of the subducting Philippine Sea plate affect the structure in the Nankai Trough. Miocene turbidite deposition on the subducting Philippine Sea plate is controlled by basement relief and smaller scale topographic irregularities. Seismic reflection data in the Kumano Basin area show that Miocene turbidites onlap a basement high. A blind thrust, associated with this basement high, is interpreted beneath an anticline within the trench wedge. This thrust is oriented approximately E-W and dips 15 degrees to the north. The existence of the blind thrust provides evidence for the location of the primary décollement plane in the trench. Landward of this blind fault, beneath the toe of the accretionary prism, trench-fill reflections are nearly parallel to the basement. These parallel reflections are overlain by discontinuous reflections associated with a recent slump on the landward slope. Sediments below the thrust are undeformed and are likely to be subducted, whereas, the deformed sediments above will accrete. Seaward of the Nankai Trough accretionary prism, variations in the location of the décollement plane may be associated with subducting plate relief and sedimentation.