

Crustal deformation in the Philippines-Eastern Indonesia from GPS observation

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We have conducted GPS campaign measurements since 1997 in the region from Mindanao, the Philippines to northern Sulawesi, Indonesia, where complex deformation belts have been formed by plate subduction zones and active tectonic lines. The campaign results, derived from combined processing with the global network data, show that the Sunda block has been detached from the Eurasian plate and its leading edge has reached the region between Mindanao and Sulawesi across the Celebes Sea, and also that the Philippine block has been displaced to the west because of the westward motion of the Philippine Sea plate relative to the Sunda block.