

Deformation structures on the Ogasawara Plateau due to collision with the Izu-Ogasawara forearc

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The Ogasawara Plateau on the western margin of the Pacific plate is a large volcanic feature which consists of several Cretaceous guyots aligned about 600km long in an east-west direction. The Pacific plate, late Jurassic to early Cretaceous in age at the Izu-Bonin and Mariana trenches is subducting beneath the Philippine Sea plate to the NW direction. Due to the plate motion, the Ogasawara Plateau is now colliding with the Izu-Bonin forearc and parts of the Plateau are accreting to the lower forearc slope. The Ogasawara Plateau is undergoing intense faulting due to collision with the Izu-Bonin arc. I will present mode of deformation on the Ogasawara Plateau based on the full-covered swath bathymetry and seismic reflection profiles.