

12,182 TREGONING ET AL.: PAPUA NEW GUINEA PLATE MOTIONS FROM GPS -- 0 o Guinea CAROLINE PLATE 150OE NORTH BISMARCOo Bismaok PLATE SOUTH BISMARCK PLATE WF SOLOMON SEA PLATE oIODLARK o} PLATE FI WI --10os AUSTRALIAN PLATE Woodlark Basin Spreading Centre 0 I, PACIFIC PLATE Bougainville Basin I 160OE 1 510 &#248;E ...

Within the Trobriand plate is the unigue to today"s earth, the youngest (7-5 million year old) metamorphic core complexes formed of sedimentary rocks that have been subject to high and ultra-high-pressure, as well as gneissic domes that are being rapid emplaced at between 1-2 cm/year (0.39-0.79 in/year) vertically. [4] [2] The metamorphic core complexes include the ...

system under the constraints of the CRUST1.0 global crustal model, onshore seismic data, and the LLNL-G3Dv3 global P-wave velocity ... role in plate subduction. Key words Papua New Guinea-Solomon; plate subduction; gravity anomaly; density structure; genetic algorithm 1 Introduction The PN-SL subduction system is located in the South-

The Bohol fault system is a reverse fault system in Bohol province, Philippines. This fault system contains three segments: the newly found North Bohol Fault following the 2013 Bohol earthquake, [2] the South Offshore Fault, [3] and the East Bohol Fault.. The North Bohol Fault is located in Inabanga and near Clarin.The South Offshore Fault affects the southern towns, while the East ...

The New Guinea Trench is a sparsely surveyed seafloor depression which runs parallel to the north coast of New Guinea for a distance of some 700 km. Its western end lies about 600 km east of the Phil...

Guinea is one of the poorest countries in the world, despite having the second-largest bauxite reserves in the world and the world"s highest-grade iron ore, in addition to substantial diamond and gold resources. It was ranked 182nd out ...

[1] Recent seismic tomography imaging shows clear evidence for southwestward subduction along the entire length of the New Guinea Trench (NGT) in Indonesia and Papua New Guinea. Viewed in conjunction with the occurrence of large ( $M_w > 7$ ) thrust earthquakes that are known to have occurred on the trench, this confirms conclusions of earlier studies that the ...

The major successor basins are: (1) the Eastern Papuan and Aure-Moresby Fold and Thrust Belt with 1.5 km of marine sediment extending onshore and offshore [14, 85]; (2) the Sepik-Ramu Basin, which has flooded the West Bismarck arc and backarc system and shed debris into the New Guinea Basin ; (3) sediment from the Ramu-Markham Fault, which is ...

Plate tectonic motions have been estimated in Papua New Guinea from a 20 station network of Global Positioning System sites that has been observed over five campaigns from 1990 to 1996.

The interactions between arc-continent collision and subduction zones are still poorly understood. Here, we use 2D seismic data to document upper plate deformational features and identify different structural styles along the New Guinea Trench, western Pacific, and discuss their broader significance. In the western section, normal faults and negative flower structures occur ...

New Guinea and eastern Indonesia. Available CMT focal mechanisms ( $M_w > 7$ ) are plotted for events located reliably on the New Guinea Trench (plus the 1979 Yapen strike-slip event). Lines in yellow indicate surface traces of tomo-graphic cross-sections (see Figure 3). AP: Australian Plate; BSSL: Bismarck Sea Seismic Lineation; CP: Caroline Plate;

The tectonically-active, steep mountainous terrain, and extremely high rainfall rates in Papua New Guinea (PNG) lead to strong erosion, high runoff and large sediment yields, which renders it a critical component of the global sediment source-to-sink system (Milliman, 1995; Milliman et al., 1999). For example, Markham and Sepik rivers supply a ...

In northwestern New Guinea, the main structural units accommodating the AUST-PACI convergence are the left-lateral strike-slip motion on an E-W fault system associated with the BSSL and the New Guinea Trench, where the Pacific Plate subducts beneath continental PNG (Fig. 1). Further to the east, the Ramu-Markham fault zone (RMFZ) and the New ...

The Single Window system is set to transform the way trade is conducted in the country, securing government revenues and fostering economic growth. The collaborative efforts of the Ministry of Budget and Webb Fontaine ...

The Kilinailau Trench is an oceanic trench delineating the former oceanic crust boundary between the Pacific Plate and the now inactive North Bismarck Plate, in the area to the west of Papua New Guinea. [1] [2] To its south west is the inactive North Solomon Trench. The collision of the Ontong Java Plateau in the then subducting oceanic crust of the Pacific Plate, initially to the trench's ...

The relationship between the nature of margins and the subduction of oceanic plateaus: Insights from variations in the forearc basement and sediments along the New Guinea Trench in the West Pacific Tectonophysics ( IF 2.7) Pub Date : 2024-02-08, DOI: 10.1016/j.tecto.2024.230235

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