

Myanmar, a Deformed Platelet at the Junction of Major Tectonic Plates

Claude Rangin¹

¹Emeritus Researcher, Nice University and GEOTECTO Consulting (claude@rangin.fr)

Abstract

The Myanmar platelet is located at the junction of the India/Sunda main tectonic plates. It is a sliver terrane brushed by drifted India and attached Bengal basin/Indian volcanic ridges. Tectonic boundaries are the active Sagaing dextral strike slip fault into the East and the Arakan Belt dextral wrench zone into the West). The Burma platelet extends northward in the region of Myanmar. Our offshore studies (seismic and bathymetry) revealed this platelet west margin is a now inactive subduction zone. The absence of active subduction is supported by seismological studies. Seismotectonics affecting the short slab observed below Myanmar reveal motion is parallel to the slab, but not shortening as randomly observed in active subduction zones. The Bengal basin accepted as oceanic crust has been proven locally attenuated continental crust as demonstrated by our refraction seismic studies along the Indo Burma Ranges. These new discoveries open new prospective windows for hydrocarbon exploration.