南海的地體構造

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Seafloor spreading from 32 – 17 Ma

Taylor and Hayes, 1983
Marine geophysical cruise in June-July 2014

Seismic reflection profiles
Multi-beam bathymetry
Gravity and magnetics
huge subducting sediments (accreted margin)

poor subducting sediments! (erosive margin)
Earthquake & tsunami hazard!

Splay fault

- thin sediment (~300 m)
- erosion face
- ~7 km
- ~500 m sediment
- ~6 km
At least two sudden uplift events! It implies two large earthquakes.
Summary:

1. 南海的盆地形成演化与周遭地体构造密切关联。

1. 南海东边的马尼拉隐没带可能带来大地震及大海啸。