

Collapse of intraplate earthquake, Separation of accretionary wedge, and Rotation of plate by lateral-fault type

MASE, Hirofumi^{1*}

¹none

(Refer to the chart)

"Nankai Slab" that subduct from Nankai Trough forms the slope that turned to the northwest and is soaked to the thing that heads eastward. That edge shapes to receive resistance. And, "Nankai Slab" receives the right turning force and weak places collapse. The part that is deeper than that place crawls up and the whole might rotate right. (A), intraplate earthquake of "Nankai Slab", and (B), lateral-fault type earthquake that the boundary with "Tokai Slab" causes, are the Nankai Earthquake(EQ) and the To-Nankai EQ and the Tokai EQ.(this paragraph (1)(2))

Two huge cracks that seem that they relate to the right rotation exist if seafloor topography chart(3) is seen.

Crack(a):This crack starts from the place of about 10km to the east in Cape Daio and lengthens to the south. And, this crack gets to the trough. The trough projects to the south on the west side on the boundary of this place. I think that this crack slips when the upper plate(land side plate, accretionary wedge) greatly moves on the lower plate "Nankai Slab".

Crack(b):This crack is shape of the character of Y off Lake Hamana and reach the trough. "Nankai Slab" and "Tokai Slab" are completely separate in the north from Lake Hamana(7). And, I think in the south this crack leads to the trough while touched. This crack is the one that this plasmotomy reached bottom of the sea and that slips when the whole of lower plate moves with the upper plate put.

Earthquake(B) is the one that Crack(b) slips. It can be said that that Crack(a) slips is intermediate of earthquake(A) and (B).

Dr. Yamanaka proposed in 2004 large and clear source model of the 1944 To-Nankai EQ that eastern edge within the range gets to Omaezaki(4).

That large area of slip is equal to the area of Crack(a) and (b). The 1944 EQ was not only earthquake(A) and everything might have happened. I composed the source process by earthquake(A),(B) and Crack(a),(b) referring to Dr. Yamanaka's (interplate earthquake) source process.

1.Earthquake(A) occurred, and it spread in the direction of northeast along the slab-contour. 2.Separation of the accretionary wedge spread to the southeast and it reached the trough. 3.The separation spread along the trough first and spread along Crack(a) next. 4.(Rotation of upper plate) Crack(a) slipped because the separation was large-scale. 5.(Rotation of lower plate) Crack(b) slipped and earthquake(B) occurred because the environment was in order. The stress occurred in the vicinity of the trough. 6.The Mikawa EQ occurred because of the influence of 4,5. 7.The 2004 EQ occurred and the stress of 5 was absorbed.

Reference literature

(1)Hirofumi MASE(2009)/SSJ2009/P3-64

http://jglobal.jst.go.jp/detail.php?JGLOBAL_ID=200902239527416838

(2)Hirofumi MASE(2010)/JpGU2010/SSS027-P10

http://www2.jpgu.org/meeting/2010_disc2/program/S-SS027.html

(3)JHOD,JCG/Seafloor Topography of the Plate Boundaries

http://www1.kaiho.mlit.go.jp/jishin/sokuryo_E/sokuryo_E.html

(4)Yoshiko YAMANAKA(2004)/Source rupture processes of the 1944 Tonankai earthquake and the 1945 Mikawa earthquake/ERI U-Tokyo

http://www.eri.u-tokyo.ac.jp/sanchu/report/Tonankai_Mikawa.pdf

(7)Nagoya Univ./Structure of the Subducting Philippine Sea Slab/ <http://www.seis.nagoya-u.ac.jp/SEIS/slab/slab-j.html>

SSS29-P10

Room:Poster

Time:April 28 18:15-19:30

