

Ahead of the 3.11, has the greatly east offing pushed the subducting plate really?

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¹none

If the temperature of a subducting plate is low, high temperature areas are generated on and under it and they tighten it from both sides by pulling against mutually(1). The stress keeps accumulating because it is not off Miyagi though there is the temperature structure that strain is liberated easily usually off Iwate and Fukushima(2). I presented the model concerning the cutting plane that expresses the range from coast to trench off Miyagi and passes the epicenter of the 3.11(3). I value (4) for the slip distribution and the rupture process of 3.11. I expect that the model will harmonize with (4) and past observation facts. The grounds material used as follows is (5).

We can understand well the features of earthquakes before and after 3.11 by the spatial distribution of focal mechanisms(P6, 1994/01/01-2012/12/31). a)(before 3.11) There are many reverse fault type earthquakes(reverse-type) at the west of the trench axis(Axis) from off Iwate to off Fukushima. At the east, one normal-type off Miyagi stands out. b)(after 3.11, off Miyagi) At the area that centers on the point(Q) of 38deg.N-144deg.E, normal-type overflow around and strike-slip-type of "Pull" stand out at the west. c)(after 3.11, off Iwate and Fukushima) Reverse-type are generated chiefly at the west of Axis, normal-type chiefly at the east, and they are faced on the boundary of Axis.

A reverse-type(y) and a normal-type(x) occurred about Q recently. The difference at the time of occurrence was a few seconds(2012/12/7M7.3 Sanriku-Oki). The appearance of (y) looks mysterious in the situation that it is located on the LINE that connects remarkable epicenters[(3.11)-(2011/7/10M7.3 strike-slip-type(X))-(x)-Axis,Q-(y)-(2011/3/11M7.5 normal-type(Y))].

Two years ago 3.11 was generated and (Y) followed 39 minutes later. It shows that the east of (Y) did not move though the LINE became "Pull" by the rapid subduction. The density in the direction of east and west has decreased about (Y). (X) was generated four months later. It was a strike-slip-type pushed from the south north both. It suggests that the amount of subduction about (X) was larger than it in the south and north of (X). Because the density amends from the south north can be expected, the density reduction in the direction of east and west about (X) is less than it about (Y). At this time, the east of (Y) did not move. Up to the present time, normal-type and strike-slip-type overflow from (X) to Q, normal-type overflow from Q to (Y). Though off Miyagi is the field of "Pull" from east to west, I guess that the density is high in the west of the boundary of Axis and low in the east. Receiving pressure from the west, reverse-type(y) was generated because the above plate slipped up and east.

Thinking the east of (Y) to be just like an anchor still now might be appropriate. The fact of a) shows the doubt in which pressure from the open sea didn't exist even just before 3.11. The fact of b)c) shows that the east of Axis is a field of "Pull" and that the action of force has changed on the boundary of Axis. Because the amount of subduction of the lower plate off Iwate and Fukushima is small by circumstances(2), the east is "Pull" though the west of Axis is reverse-type and "Push" already. This harmonizes with the explanations(1) that among powers to act on the subducting plate, one acts from not the east but the lower.

(1)[Mase]<http://www2.jpgu.org/meeting/2007/program/pdf/S149/S149-005>

(2)[Mase]SSJ/ABSTRACTS/2011MEETING/P3-40

(3)[Mase]SSJ/ABSTRACTS/2012MEETING/P2-75

(4)[Ide]<http://www.s.u-tokyo.ac.jp/ja/press/2011/12.html>

(5)[JMA]<http://www.jma.go.jp/jma/press/1301/10a/1212tohoku.pdf>