



Interactive comment on “The fate of fluids released from subducting slab in northern Cascadia” by K. Ramachandran and R. D. Hyndman

J. van Hunen (Editor)

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Dear authors,

Once again thanks for submitting your manuscript to Solid Earth, and for commenting on the reviews. I have read the reviews and your comments in detail. Overall, I think all referee comments are very reasonable, and addressing the reviewers' points seems to me relatively straightforward.

Regarding your replies to the reviews, I'd like to comment on a few of the discussion points that the referees raised:

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About anonymous referee 1 comment nr 3: I think the referee's suggestion is reasonable: the resolution at a depth of 30-50 km is unclear from the checkerboard tests, so doing a synthetic test (in which more realistic synthetic anomalies are imposed as input model) would really help convincing the reader that the imaged features are reliable. If, for whatever reason, such tests are not feasible, then at least a thorough discussion on this issue would be necessary.

Anonymous referee 2: Perhaps there is some misunderstanding about the referee's comment on water budget, in which it is argued that Hyndman and Peacock (2003) do indeed provide data for a young subduction zone, but this applies to SW Japan, not Cascadia. Perhaps the data is more generally applicable, and maybe even for the specific case of Cascadia, but this needs to be discussed or shown explicitly. Also the other referee requests on clarifying the water budget seem reasonable to me, and I would recommend discussing these issues in more detail. I furthermore agree with the referee that a better comparison with previous work would strengthen the paper significantly.

I look forward to your revised manuscript.

Sincerely,

Jeroen van Hunen

Interactive comment on Solid Earth Discuss., 3, 943, 2011.

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