**Biogeosciences
Discussions**

Interactive comment on "Inverse estimation of source parameters of oceanic radioactivity dispersion models associated with the Fukushima accident" *by* Y. Miyazawa et al.

Anonymous Referee #1

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The present paper presents a interesting estimation of Fukushima accident release magnitudes. Only a few points should be addressed:

page 13786, line 23: some text is missing after "... which for 137-Cs" (add the value of half life).

Equation 2: this represents the boundary condition of equation on the sea surface. Thus please add in the left side of equation 2 that the derivative o C respect to z is evaluated at the surface.

page 13788: is JCOPE-T what is called later JCOP-T1? please use the same names.

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page 13791, line 13: again JCOPE-T is mentioned. Is it JCOPE-T1?

equation 5: the same as for equation 2.

Section 4 and table 3: it is not clear how the optimization is carried out, at least I cannot understand it and would appreciate if can be explained more clearly. It is said that two sensitivity experiments are made, perturbing Sa and So. Why there are 4 columns of results in table 3? Moreover, which is the difference between ocean-multiple and atmosphere-multiple, if multiple means that both parameters are used?

caption to table 3: a new name appears here: JCOPE-T-2-C-E, please add a star to refer to the note below the table.

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