

Interactive comment on “Cesium-134 and 137 activities in the central North Pacific Ocean after the Fukushima Dai-ichi nuclear power plant accident” by J. Kameník et al.

J. Kameník et al.

kamenik@hawaii.edu

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C. Jeandel, comment 1

My most important comment -but following it would greatly improve the paper- is that a short but clear and explicit description of the main surface currents encountered in this area (jets, recirculation, dynamic, time scales of the main advection...) is missing. This could be added as a map representing the state of the art of the surface dynamic and a short paragraph setting the hydrodynamical context. Such add would help to follow the discussion on the tracer dispersions, strongly coupled to this dynamic.

Authors

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We agree with the comment. A reference to a paper with detailed description of the currents in the western North Pacific was added to the paper. The sentence on P5231 L10-L14 (Although...) has been adapted as follows:

The area of interest is dominated by east flowing warmer waters of Kuroshio and Kuroshio extension currents at latitude about 35° N (for general circulation patterns see e.g. Qiu, 2001, for dominant current directions in June 2011 see Rypina et al., 2013). The contaminated water from F1-NPP was discharged north from Kuroshio current that acted as a southern boundary for transport of this oceanic source (Bueseler et al., 2012; Rypina et al., 2013). The atmospheric transport models (e.g. Stohl et al., 2012) predicted that some radionuclides from the atmospheric source were spread south from the Kuroshio current. This was later confirmed by seawater (Aoyama et al., 2012; Honda et al., 2012) and sinking particles analysis (Honda et al., 2013).

References added:

Honda, M. C., Kawakami, H., Watanabe, S., and Saino, T.: Concentration and vertical flux of Fukushima-derived radiocesium in sinking particles from two sites in the North-western Pacific Ocean, *Biogeosciences*, 10, 3525–3534, doi:10.5194/bg-10-3525-2013, 2013.

Qiu B.: Kuroshio and Oyashio currents, in: *Encyclopedia of Ocean Sciences*, eds: Steele J.H., Thorpe S.A., and Turekian K.K., Academic Press, 1413–1425, 2001.

C. Jeandel, comment 2

Very minor comment: Guam Island is not reported on the map.

Authors

We agree with the reviewer that Guam was not visible on the map but at this scale it is too small to show up. Due to dimensions of the island, Guam is not plotted with a

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visible sign on the map scale used. To fix this problem and keep the right scale on the map the position of sampling stations near Guam (G1 to G7) was indicated by larger diagonal crosses on Figure 1.

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