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.

C. Jeandel (Referee)
catherine.jeandel@legos.obs-mip.fr

Received and published: 17 April 2013

This paper discussed results of 134Cs and 137Cs measured between the Japanese coast and Hawaiian Islands in order to monitor the dispersion patterns of these radioisotopes towards the Hawaiian Islands, consecutive to the Fukushima-Dai-ichi power plant accident. This study demonstrates that southern boundary of the Kuroshio and Kuroshio extension currents are acting as a boundary for radiation dispersion with higher activities detected within and north of the major currents. The radiation plume has not been detected over the past 1.5 yr at the main Hawaiian Islands due to the transport patterns across the Kuroshio and Kuroshio extension currents. This monitoring provides an essential survey and publishing it is very important. It is clearly written and well presented. 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.

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

Interactive comment on Biogeosciences Discuss., 10, 5223, 2013.