Monday, October 8
Poster Session 1
16:00–18:00

Poster 173

SPM MONITORING SINCE THE TOHUKU TSUNAMI IN 2011 WITH GOCI IMAGES

The devastating moment magnitude Mw9.0 earthquake that struck the north-eastern part of Japan on 11 March 2011 triggered a massive tsunami with several large waves that inflicted heavy damage on the Fukushima Dai-ichi nuclear power plant. Because SPM can carry contaminants radionuclides from run off of continental watershed, we studied the SPM distribution in the marine area since the tsunami in 2011. The first study analyzed the distribution one day after the tsunami, the second during the 6 following month and the last the distribution after the typhoons since 2011. GOCI sensor is the only geostationary sensor (GEO) dedicated to the ocean water color. With a frequency of 8 images per day and a high sensitivity to water color, GOCI is the best suited sensor to monitor the temporal evolution of suspended matters. Its geographical coverage is limited around the Korean Peninsula (110 ° E to 145 ° E, 24 ° N to 48 ° N) but this area also covers Japan. Flow rates of rivers and their 134Cs and 137Cs contamination helped us to deduce the SPM discharge (g/s) and the contamination discharge (Bq/s). Contamination can also be mapped around the river mouth assuming that the SPM are equally contaminated. In situ measurements were used for validation purpose.

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