Cruise track from underway data from the R/V MIRAI MR11-06 cruise in the Western equatorial Pacific and Kuroshio Extension region (Fukushima Radionuclide Levels project)

Website: https://www.bco-dmo.org/dataset/3694
Version: 10 August 2012
Version Date: 2012-08-10

Project
» Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels)

Contributors	Affiliation	Role
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Dataset Description

Cruise track extracted from navlog files downloaded from JAMSTEC R/V Mirai website (http://www.godac.jamstec.go.jp/cruisedata/mirai/e/MR11-06.html).

Methods & Sampling

Data acquired at one-minute intervals using Sena Advanced Integrated Navigation System version 19

Data Processing Description

Data were subsampled to hourly intervals

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Data Files

File
cruise_track_Mirai.csv (Comma Separated Values (.csv), 33.65 KB) MD5:a0a528a07ade8ffad4455b310c8f6aeb Primary data file for dataset ID 3694

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Parameters

Parameter	Description	Units
cruise	Cruise identifier	dimensionless
date	date of sample	YYYYMMDD
lat	latitude	decimal degrees
lon	longitude	decimal degrees
time	Time of cast	HHMM

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Deployments

MR11-06

Website	https://www.bco-dmo.org/deployment/58840
Platform	R/V MIRAI
Report	http://www.godac.jamstec.go.jp/cruisedata/mirai/MR11-06/MR11-06_summary_eng.pdf
Start Date	2011-08-13
End Date	2011-09-20
Description	Tropical Ocean Climate Study Ports call: Sekinehama(Japan) - Hachinohe (Japan) - Singapore (Republic of Singapore)

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Project Information

Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels)

Website: http://www.whoi.edu/page.do?pid=67796

Coverage: Northwest Pacific Ocean

The March 11, 2011 earthquake in Japan and the subsequent tsunami damaged and disrupted cooling systems at the Fukushima Daiichi nuclear power facility causing contamination of land and seas surrounding the site, as well as food supplies and drinking water. Small but measurable quantities of radioactivity have been detected in the atmosphere over the United States, including aerosol samples collected at the Woods Hole Oceanographic Institution, where I-131 was seen to increase to detectable levels as of March 21-22, 2011.

With major funding from the Moore Foundation, as well as a contribution from the National Science Foundation through a 2011 Grant for Rapid Response Research (RAPID) and support from the Woods Hole Oceanographic Institution, collaborating investigators from the United States, Japan, Spain, Monaco, and the United Kingdom were able to obtain samples off Japan for an early assessment of impacts.

From June 4 through June 19, 2011, a research cruise was carried out aboard the RV Kaimikai-O-Kanaloa, a research vessel operated by the University of Hawaii. During the cruise, hundreds of samples were collected in an area off the coast of Japan as close as 30 kilometers from the Fukushima Nuclear Power Plant and extending as far out as 600 kilometers off shore. The essential components of the program include: radionuclide measurements of water and particles; a radioecological study of biota, especially species at the base of the food chain and key fish species and a physical oceanographic study to characterize transport and water masses. A baseline radionuclide data set for the Atlantic and Pacific was obtained along an east to west

network of sampling stations. Three hundred sampling events took place at thirty major stations for a total of more than 1500 samples. Along with 41 CTD stations, bottle samples of salinity, oxygen, radionuclides, and particulates were taken to depths of about 1000 meters. A list of the radionuclides sampled and a sampling summary map is available. One hundred net tows resulted in approximately fifty pounds of biological samples, including plankton and small fish. Daily samples of aerosol were also taken.

Early investigation following an accidental release of man-made radionuclides is key to understanding the magnitude of the release and the relationship to public health issues The research results also set the stage for the use of the longer lived radionuclides as tracers in subsequent studies by the community to understand ocean processes.

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