










The enclosed package represents radiation data collected with the fixed-wing aircraft (C-12) from 2 April 2011 to 9 May 2011. The data were collected with an array of large thallium activated sodium iodide (NaI(Tl)) crystals and associated readout electronics to produce time and location referenced measurements.

Each data collection flight was processed separately. The **gross count rate** data from the NaI(Tl) array were corrected for the system background and livetime to yield **net count rates**. The net count rates were corrected for the altitude **above ground level** based on factors which were determined empirically. This process included flying over a defined area at multiple altitudes. The altitude-corrected net counts were converted to the **exposure rates** at 1 meter above the ground by making use of measurements performed by ground teams. The derived exposure rate includes contributions from the natural background radioactivity as well as the deposited contamination.

Ground teams had performed measurements with High-Purity Germanium (HPGe) detectors from which the isotopic composition of the deposited contamination was determined. This mixture was used to project the time evolution of the exposure rate from the contamination, and the contribution of the cesium isotopes to the exposure rate as a function of the deposition concentration ($\mu\text{Ci}/\text{m}^2$). These projection calculations can be applied to the exposure rate results derived from the aerial data to illustrate results which would be appropriate at times different from the collection time. In order to combine the data collected over the 5 weeks represented by this set, the projected exposure rates and deposition concentrations were calculated for the common date of 30 June 2011.

CSV Field	Field description
Date	UTC date-time that the data was collected
Latitude	Location from the GPS receiver in decimal degrees
Longitude	Location from the GPS receiver in decimal degrees
ALT_HAE	Height above the ellipsoid from the GPS receiver in meters
AGL	Height above the ground level in meters
LiveuSec	Collection live time in microseconds
GC	Gross counts in the detector array
ExposureRate	Exposure rate in mR/hr at the measurement time
ExposureRate_20110630	Projected exposure rate in mR/hr on 30 June 2011
Cs134_uci_20110630	Projected ^{134}Cs contamination in microcuries/ m^2 on 30 June 2011
Cs137_uci_20110630	Projected ^{137}Cs contamination in microcuries/ m^2 on 30 June 2011

KMZ Placemark Attribute	Attribute description
Date	UTC date-time that the data was collected
Latitude	Location from the GPS receiver in decimal degrees
Longitude	Location from the GPS receiver in decimal degrees
Altitude HAE (m)	Height above the ellipsoid from the GPS receiver in meters
Altitude AGL (m)	Height above the ground level in meters
Livetime (microsec)	Collection live time in microseconds
Gross Counts	Gross counts in the detector array
Exposure Rate (mR/hr)	Exposure rate in mR/hr at the measurement time
Exposure Rate – 20110630 (mR/hr)	Projected exposure rate in mR/hr on 30 June 2011
Cs134 – 20110630 (Bq/m ²)	Projected ¹³⁴ Cs contamination in becquerels/m ² on 30 June 2011
Cs137 – 20110630 (Bq/m ²)	Projected ¹³⁷ Cs contamination in becquerels/m ² on 30 June 2011

KMZ Placemark Color	¹³⁴ Cs Bq/m ² on 30 June 2011
	<10,000
	10,000 – 30,000
	30,000 – 60,000
	60,000 – 100,000
	100,000 – 300,000
	300,000 – 600,000
	600,000 – 1,000,000
	1,000,000 – 3,000,000
	> 3,000,000

