

## **Monitoring of naturally occurring radionuclides in Santa Cruz - Galapagos Islands, in relation to atmospheric and ocean-atmosphere interaction processes over the Galapagos Islands and the Ecuadorian coast**

The IMS radionuclide particulate station at Santa Cruz- Galapagos, is located in an area where various oceanographic and atmospheric processes converge. An assessment of the radionuclide activity concentrations in relation to atmospheric and ocean-atmosphere interaction processes serves as reference for temporal analysis of atmospheric processes in the Equatorial East Pacific. With this regard, activity concentrations of  $^7\text{Be}$  and  $^{212}\text{Pb}$  were continuously measured using HPGe high resolution gamma spectrometry. Daily and monthly data collected from June 2017 to December 2018 are presented and discussed in this study by means of statistical analysis of radionuclide activity concentration, atmospheric parameters and ocean-atmosphere interaction indices. The results showed less variable values of  $^7\text{Be}$  concentration over wet season, as well as, higher concentrations during the season transition month and lower values at the end of the wet season. The analysis of  $^{212}\text{Pb}$  distribution revealed clear seasonal behavior, with minimum activity concentrations during dry season and maximum values during wet season. Moreover, each radionuclide showed significant correlation with atmospheric parameters and climate indices. This poster summarizes the baseline of activity concentration of  $^7\text{Be}$  and  $^{212}\text{Pb}$  and its response and interaction with atmospheric and ocean-atmosphere interaction processes over the Galapagos Islands and the Ecuadorian coast.

**Primary author:** GARCIA AREVALO, Isabel (Insituto Oceanográfico de la Armada (INOCAR))

**Presenter:** GARCIA AREVALO, Isabel (Insituto Oceanográfico de la Armada (INOCAR))

**Track Classification:** Theme 1. The Earth as a Complex System