Gamma radiation monitoring campaign at the Azores ENA-ARM station (Graciosa Island)

A Data Management Plan created using DMPonline-test

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Copyright information:

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Data Collection

This project focuses on the study of the temporal variability of gamma radiation and it's association with atmospheric ionization conditions. During the project sensor data will be collected (radioactivity and temperature sensors), in various formats ASCII table; .txt format. The files size is expected to range between 10Kb and 10MB with a total volume of data of about 500 MB.

Gamma radiation will be measured at the ENA-ARM station, Graciosa Island, Azores (39 N, 28 W), with a NaI(Tl) scintillator (Scionix, Holland),equipped with an electronic total count Single Channel Analyzer (SCA) that detects gamma radiation in the energy range from 475 KeV to 3 MeV. Data will be collected from the sensors datalogger on a weekly basis by the ENA staff at the station. The new available data since the last collection will be copied from the instrument's datalogger and sent to the PI every week. Frequency: The measurements will be performed every 15-minutes or higher if deemed necessary. Data acquisition methods are reused from previous campaigns. Both data and methods can be reused.

Documentation and Metadata

Metadata will be created using Dublin Core, by Dendro (specific descriptors created for specific needs) or directly during deposit stage on the data repository of INESC TEC and of the ARM Data Archive. The ARM Data Archive has specific descriptors, not metadata standards. Metadata about radioactivity sensors, or geographic location can be created automatically. Keywords are generic to domain and project, for example: atmosphere; environmental radioactivity; gamma radiation; radon.

Ethics and Legal Compliance

The data don't have sensitive information, any ethical or legal issues.

Copyright and IPR of most of the data in this part belongs to the group.

Storage and Backup

The data wiil be openly available and backed up on the research data repository of INESC TEC (https://rdm.inesctec.pt/) and ARM Archive (http://www.archive.arm.gov/discovery/), according to their configuration.
Also, data can be stored in external disc.

The analysis of the data can be carried out using R; python, matlab. License for reuse will be Share-Alike (https://creativecommons.org/licenses/by-sa/4.0/).

Question not answered.

Selection and Preservation

There are not many data similar to these, so they are important for other researchers in the area of environmental radioactivity, and other domains including atmospheric and health physics as well as for educational purposes. That is why long-term preservation is required to ensure reuse of the data in multiple environmental domains and different applications.

The data will be stored and backed-up on the ENA station facility and ARM Data Archive and on rdm.inesctec.pt - INESC TEC research data repository.

Data Sharing

The data will start to be available during the campaign. The dataset will include raw data and pre-processed data after implementation of quality-control procedures for missing values and outliers. The data will be available unlimited. Reporting and data submission is required 6 months after the campaign conclusion.

The data don´t have any restrictions and will be available according license Share-Alike https://creativecommons.org/licenses/by-sa/4.0/

Responsibilities and Resources

PI researcher is responsible for each data management activity. Also, PI is responsible for storage and backup of the data in external disc.
The data will be backed up according to configuration in INESC TEC research data repository. The system administrators of INESC TEC are responsible for storage and backup of the data.

Question not answered.