

Cross-Calibration of Airborne and Ground Based Gamma Radiation Survey Techniques Under On-Site Inspection Conditions

This study presents the method of work and results obtained during a field campaign deploying various on-site inspection (OSI) equipment techniques in order to cross-calibrate the performance of OSI gamma radiation sensors. Airborne and ground-truth survey techniques are deployed over large areas, whereas in-situ high resolution gamma spectroscopy measurements are conducted at specific locations, and supported by environmental soil and vegetation sampling and analysis at the field laboratory. The deployment region including the calibration line is part of the Allentsteig area, Austria, which has been previously characterised for its sedimentary composition. Results collected and lessons learned will be used to build an improved framework for future field exercises aimed at periodically monitoring performance and cross-calibrating field instruments prepared for an on-site inspection. Such capability also provides opportunities for practicing and training surrogate inspectors under realistic field scenarios.

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