Experiences With Area Specific Spectrum Stripping of Nai(Tl) Gamma Spectra - DTU Orbit (27/11/2018)

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Abstract Processing of airborne and carborne gamma-ray spectra (AGS and CGS) often includes the stripping (elimination) of the signals from natural radioactivity. Hereby the net result becomes the signals from manmade radioactivity or other radiation anomalies. The parameters needed for spectrum stripping are dependent on detector size and quality as well as on the energy windows. In addition they depend on the environmental geometry including the vehicle carrying the detector. For AGS the altitude also influences the parameters. In general the stripping parameters are determined from tedious laboratory or field measurements with known sources of natural radioactivity. Stripping parameters may, however, often be calculated from the actual survey data or from data from a similar area. Both post processing and real time processing is possible. The technique is useful for gamma source search, for detection of radiation anomalies and for mapping of contamination levels. The use of the technique is illustrated with field exercise data. (Publication published on-line)

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