

High Density Wide-angle Imaging of Deep Crust : Preliminary Results From Onshore Swabs

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In 1992 the Seismic Wide-Angle and Broadband Survey (SWABS) experiment was undertaken by BIRPS to determine physical parameters (P- and S-wave velocities and density) of deep crust. Glasgow University acquired a unique onshore reflection dataset by deploying an off-end, 192-channel 3 km long static spread which recorded airguns fired at 50-75 m intervals at offsets of up to 200 km. Recording was continuous for a total period of about 30 hours and produced 2600 96-channel 58 s data files. Our multi-shot, multi-receiver geometry permits us to enhance deep crustal features using common receiver gathers, or a single interleaved receiver gather to examine lateral reflector coherency at high resolution. Or, to produce a wide-angle deep crustal stack.

Examples will be presented to demonstrate data quality and preliminary findings.

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