

**Poster 2****Engineering acquisition and processing: An integrated design approach for optimal seismic data**

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Traditional approaches to seismic acquisition focus on noise reduction with arrays and always prove to be inadequate since they also filter the signal. Traditional processing procedures thus have a dual role – initially to repair the damage signal and then enhance it. It is too late. The damage is already done.

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Anstey (1987) was the first to suggest better methods of acquisition. His "design on the signal" and "STACKARRAY" ideas were followed by Ongkiehong (1988) who advocated spatial aliasing of the noise as the optimal method for signal-to-noise separation and therefore signal enhancement. Ongkiehong's method, however, forces the data user into the domain of F-K space, a domain where geophysicists are not comfortable.

This paper will briefly review these techniques and demonstrate by example that properly designed acquisition and processing in F-K space can produce seismic data with virtually zero linear noise. The method is usually valid for land or marine exploration targets.

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