Multiple aliasing problems in marine data

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Linear noise has been observed to be closely associated with marine seismic data whenever the shot spacing is double that of group interval (e.g. 50 m shot interval and 25 m group spacing). This noise is noticed to be more severe at shallow depth (above 500 m). Not much attention has been given to it in the past as normally the zone of interest is below 500 m. However the noise occurring on recently acquired 2D deep water data and 3D data seems to penetrate deeper and is more disturbing than as seen on data in the past. It has been found that this noise is related to aliased multiples, especially sea bottom multiples. This paper discusses the basic multiple related problem and suggests ways to solve it.

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