

# Streamer Sensitivity Normalization

*Polarcus Geophysical Toolbox : Managing streamer sensitivities*

## Purpose

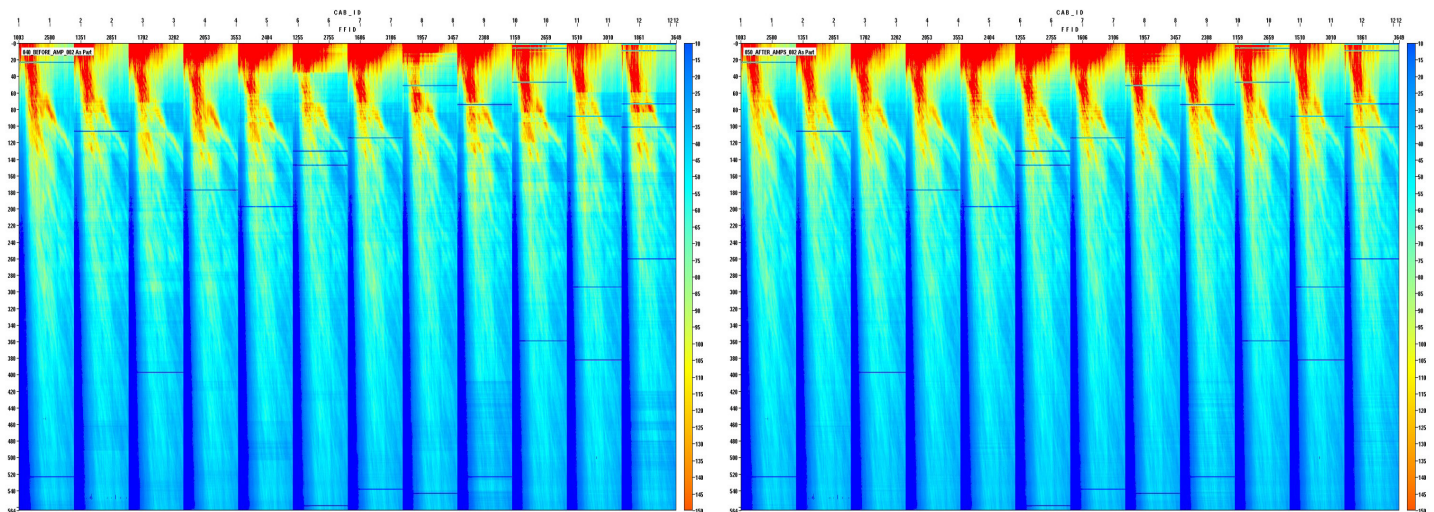
To extract relative variations in streamer acoustic sensitivities from field data amplitude statistics allowing normalization of the entire receiver spread and significantly improving relative amplitude preservation. Polarcus' streamer section relative amplitude measurement can now be as accurate as +/-0.1dB, which is 15 times more accurate than industry standard +/-1.5dB.

## Benefits

- The recording system footprint is identified as a separate source of noise within the acquisition footprint and can now be corrected for by using Polarcus' Streamer Sensitivity Normalization technique
- Accurate measurements of streamer section sensitivity during the acquisition stage allows appropriate amplitude corrections to be applied before any processing is carried out
- The wide dynamic range provided by modern 24-bit streamer systems allows relative sensitivity corrections to be accurately applied in a range beyond the traditionally accepted +/- 1.5 dB
- Improved streamer spread management – saving time on streamer reconfiguration, advanced planning of spread deployment and section changes

## Field Example

Below is an example of target window amplitudes (A) before and (B) after application of sensitivity correction scalars. Sensitivity corrections work very well on a separate subset of data, while calculated from survey-wide statistics. Raw data sensitivity variations before correction are within +/-1.5dB.



(A) Target amplitude before

(B) Target amplitude after

## Impact on EHSQ

Advanced deployment and spread maintenance planning allows significant reduction of exposure hours for workboat crews. This also minimizes the time our vessels spend on location to acquire high quality surveys in a safe and efficient manner. This optimization of survey time reduces the global environmental footprint of our operations and minimizes the exposure of our crews in the remote regions of the world where our vessels are designed to operate.