

ACOUSTICS2008/497
Active sonar clutter and auralization

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Target-like false alarms generically termed clutter are the primary hindrance to active sonar in shallow water operational areas. Clutter can arise from a myriad of sources with geologic, biologic and anthropogenic origin. The clutter-source echoes are often determined by automatic signal processing to be target-like and therefore potentially of interest. These numerous false alarms consume either the sonar operator's time or flood automated data and information processing algorithms. Aural analysis of clutter echoes (auralization) can increase active sonar performance through improved operator or algorithmic classification. An overview of active sonar clutter is presented with a focus on the role of auralization for clutter reduction.
[Supported by the Office of Naval Research Code 321US under contract number N0001407C0092]