



## **Sound pressure level variations across the Pacific based on IMS data**

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Low frequency hydro-acoustic waves can be detected at great distances due to low attenuation of acoustic energy in the SOund Fixing And Ranging (SOFAR) channel. These waves contain both acoustic source and propagation medium information which is difficult to separate at the receiving end. This study examines sound pressure level variations across the Pacific using 100 underwater controlled sources near a landward slope zone in Japan to minimize source uncertainty. The data were acquired at water-column hydrophones of the hydroacoustic station HA03 at Chile that is part of the International Monitoring System (IMS) of the Comprehensive Nuclear Test Ban Treaty. Acoustics waves were detected over 15,000 km across the Pacific and initial analysis indicates a maximum difference of the pressure level is 17 dB re. micro Pa.