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A series of range-dependent monostatic and bistatic numerical simulations of reverberation from near-bottom-mounted source and receivers was made to investigate the experimental designs for the acoustic reverberation special research program (ARSRP). Vertical line array receivers and point sources were simulated in both monostatic and bistatic configurations to determine the time-dependent ensonified field and reverberation levels. Planar array simulations were made for bistatic configurations to determine the potential gain in both vertical and horizontal directionality. The simulations revealed some geometry related issues that must be addressed to obtain high-quality acoustic data in the high-resolution natural laboratory area.



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