

A Study of Vibration of Bundled and Single Conductors: A Comparative Case Study

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A series of field tests were undertaken during December 1985 in Littleton, New Hampshire for the New England Power Company to measure the Aeolian vibration of a new triple bundle DC transmission line. The objective was to evaluate the performance of the damping devices installed on the Phase I transmission line. These measurements utilized an accelerometer and an FFT Analyzer, both commercially available devices. These tests provided design data for specifying vibration control devices for the Phase II line. The conclusions reached were: (1) vibration of a single conductor is 4-5 times less than the vibration of the triple bundle having five spacer-dampers of a particular type, and (2) the level of vibration of the bundle having only one spacer-damper at mid-span and one end-point damper per sub-conductor is the same as a single conductor. *See Vibration of Bundled and Single Conductors: A Comparative Case Study*