

3.1-O2. Considerations for the Design of Future Treaty Monitoring Seismic Arrays

This research started with writing the specifications that were discussed in the early Working Group B meetings back in the late nineties, coupled with a number of lessons learned in the subsequent decade and a half from the installation of a number of these arrays. Also included were a number of upgrades to the existing arrays, and more recently, improvements in the hardware (for example: hybrid seismometers), communications, etc. Lastly, and importantly, what information do we need to acquire from the newer versions soon to be deployed. An important element of this research includes detailing those features of the deployed arrays that have served so well that any new array should take advantage, by starting with these features; thereby, making even greater capabilities in our monitoring capability. The recent DPRK events have helped in the improved design of the arrays; probably improvement can be summed up in the array design needs by reducing the effect of noise; however, equally important is stressing the character, and the number of signals to be detected so that processing such as correlations can be performed. Another important feature is the increased sample rate required in the future.

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Track Classification: 3. Advances in sensors, networks and processing