

Empirical Evaluation of the International Monitoring Systems Detection Capability





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- **Goal:** Estimate the detection capability of the currently deployed seismic components of the International Monitoring System.
- **Method:** The capability estimates are derived a global earthquake catalog. Using an earthquake catalog allows for the behavior of the analysts and their assessment of whether an arrival is good enough quality to estimate an event location.
- **Result:** Currently even the incomplete network has a 90% probability of detection at M ≥ 4.0 in most parts of the world. The inclusion of the Auxiliary network does not produce significant improvement due to how they are utilized and is not representative of their true capability.





