

Possibility of using single three-component station automatic detector and locator for detailed seismological observations

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Abstract. A new automatic single station seismic detector/locator is described. Some new approaches in phase detection and event location are implemented. Three-component seismic station HSPB data for 2011 were processed using the new detector and locator. Analysis of the results has shown that the application of intelligent detection algorithms allows obtaining events lists with small number of false alarms. Location accuracy is satisfactory for most events. This allows revealing some new features of the local seismicity and geophysical processes.

Keywords: automatic detection, automatic location, earthquake, архипелаг Шпицберген, seismic monitoring, icequakes.