

应用地震观测技术监测仓库附近人员活动的可行性研究

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摘要 本文应用数字化地震观测技术对中国人民解放军某部队仓库进行了全天候人员活动监测可行性的评估研究, 给出了仓库场地微振动背景参数和人员活动的最大振动强度距离衰减关系. 结果表明, 短周期水平向地震计更适合人员活动的监测, 直接采用原始观测数据和现有观测设备可控监测半径约为20 m. 人员活动特征有显著的振动模式, 如果针对场地微振动特征和人员活动特征进行滤波和模态分析, 有可能进一步提高监测的可控半径.

关键词 [人员活动, 场地微振动, 地震观测技术, 仓库安全, 监测](#)

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Feasibility study of monitoring on people's movements near a depot with seismic observing technique

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Abstract The feasibility of All-weather monitoring on people's movements near a depot with seismic observing technique is studied on the basis of actual observing data in this paper. The characteristics of ground tremor and the relationship between maximum intensity of ground tremor and people's movements are analyzed. Monitoring results show that the horizontal short-period seismometer is fit for monitoring people's movements, and the controllable distance around a seismometer is 20m by recorded raw data. Special features of people's movements can be clearly reflected on the recorded vibrating diagram. This offers a possibility to increase the controllable distance of the monitoring by means of wave filtering and mode analysis.

Key words [P315](#)

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