



## **Infrasound and seismic signals from Baikonur spaceport rocket launches recorded by Kazakh stations**

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The monitoring network of the Institute of Geophysical Researches, Kazakhstan consists of 2 infrasound arrays, 8 seismic arrays and 7 3C stations. 5 of these stations are a part of IMS CTBTO. The Institute of Geophysical Researches monitors round-the-clock many sorts of seismoacoustic events.

Tens of rockets are launched every year from Baikonur spaceport located in Central Kazakhstan. Baikonur rockets fly over several regions of Kazakhstan. Kazakh monitoring stations record launches, rocket stage falls, satellite recovery and sometimes accidents.

A catalog of events associated with such activity is built. Some waveform features are collected. The catalog also contains some kinematic and dynamic parameters of the events sources.

The signals from accidents of Dnepr rocket of July 26, 2006 and Proton rocket of September 5, 2007 and of July 2, 2013 were studied in details.

Discrimination of the events associated with spaceport activity and its exclusion from seismic bulletins allows improving the bulletins quality. And in case of accident this information helps to estimate the event parameters and to start recovery procedures in proper time.