

of Rocket Launches from Baykonuyr Space Port by Data of Seismic and Infrasound Stations of Kazakhstan

Tens of rockets are launched each year from Baykonuyr space port located in Central Kazakhstan. The rockets flight routes are above several Kazakhstan regions. Since 1994 the IGR RK monitoring network has been operating successfully on the territory of Kazakhstan. The network includes 8 seismic arrays, 7 three-component stations, and 2 infrasound arrays. 5 objects of the system are included into the IMS. In addition to the permanent stations, a network of field stations is frequently installed on the territory of Kazakhstan to solve different investigation tasks; data of field stations can be used for more detailed monitoring of different nature events. Using data of seismic and infrasound monitoring stations of the IGR RK the tracking possibilities for different flight phases of the rockets were investigated: launching, flight, stage separation and falling, and explosion in air and on surface during accidents of rockets. The events catalogue related to the stages fall was compiled, waveform features as well as kinematic and dynamic parameters of these events were investigated. Large accidents of July 26, 2006 related to Dnepr carrier rocket and of September 5, 2007 for Proton rocket were investigated in details.

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