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of an explosion at the Kakhovka HPP dam by the Ukrainian geophysical network

Verification of events is a very important task for national monitoring systems. The Ukrainian NDC demonstrates this ability at least at the regional level. As an example, consider the event at the Kakhovka HPP dam that occurred on May 5, 2023. The estimated time in the source is 23:34:50 UTC. Determining the exact time of the event was accompanied by certain difficulties. First, its low energy and, as a result, a small number of seismic stations that recorded it. The signal was recorded by the Ukrainian seismic stations AKASG (PS45) and LUBAR. BURARI (Romania) and SORM (Moldova) stations also participated in the calculations. Second, mixing signals from different events in the same time interval. The spectrum of seismic signals indicated the explosive nature of the event. This was also confirmed by signals recorded by the Ukrainian infrasound network. The signals were recorded at the KPDA (Kamianets-Podilskyi), MAAG (Malyn) and GRDI (Horodok) infrasound arrays. The joint processing of seismic and infrasound data made it possible to localize and identify the event, as well as determine its energy parameters. The information obtained was included in the investigation materials, which confirms its objectivity and extreme importance.

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