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Infrasound Monitoring Capabilities in Sweden

Infrasound sensors have been installed for national purposes at the site of the Hagfors seismic array in Sweden. The co-location of the infrasound sensors with the central elements of the International Monitoring System (IMS) auxiliary station (AS101) facilitated straightforward deployment by leveraging the existing infrastructure. Acoustic inlets were designed and produced in-house using AI-driven 3-D printing technologies, then integrated with ISO-standard components (water and air pipes, hoses, and fittings), simplifying maintenance and ensuring a cost-effective installation. The addition of acoustic sensors in Hagfors strengthens the national ability to detect and analyse both natural and human-made events across seismic and infrasound domains. This contribution presents the new operational infrasound array, demonstrates the integration with the seismic system, and explores its capabilities to detect various natural and anthropogenic infrasound sources.

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