

## Dense infrasound observation network planned in Kochi prefecture

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Infrasound is known as pressure waves in atmosphere with its frequency lower than the human audible limit of 20 Hz. Due to its distant propagation characteristics without large attenuation, the infrasound can be used as a remote-sensing tool for the huge scale geophysical events closely coupled with atmospheric environment. Tsunami is one of the most dangerous geophysical phenomena for human life and the Japanese originated word of TSUNAMI shows Japan is one of the most dangerous regions for tsunami disasters in the world. Kochi prefecture is located in Shikoku island and, at along the southern coast of Kochi, we have many dangerous sites of tsunami invasion once a huge earthquake happens in Nankai Trough in the pacific ocean, just near the southern coast of Japan. Infrasound observation network has currently been installing in Kochi region since 2016 for disaster prevention, taking account mainly for tsunami disasters. As for the pilot arrangement, we installed 5 sensors in Kuroshio Town in western district in Kochi pref. with a separation of about 2 and 8 km, making two-sized triangle arrays there. The infrasound sensor arrays reveal us some important feature of the detected signals coming from Typhoons and volcanic eruption of Mt. Aso in Kyushu island. Moreover, in 2017, we have a plan to install 11 more sensors in Kochi pref. to make the densest infrasound observation network in such specific small area in Japan. In this talk, we will introduce our observation design of the network and previously obtained datasets for consideration of tsunami disaster prevention.

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