都道府県規模インフラサウンド観測網の紹介

#山本 真行 [1] [1] 高知工科大

Introduction of infrasound observation network in prefectural level

Masa-yuki Yamamoto[1] [1] Kochi Univ. of Tech.

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. Here we show the current situation of infrasound observation network in prefectural level, that has been established in Kochi.

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 been installed in Kochi region since 2016 for disaster prevention, taking account mainly for tsunami disasters. In 2017 we expanded our sites to be 15 in Kochi pref. The infrasound sensor arrays reveal us some important feature of the detected signals coming from Typhoons, volcanic eruption of Mt. Aso/Kirishima/Sakurajima, thunders, fireball (large meteor) events.

As the network is one of the densest infrasound observation schemes in such specific small area in a nation, we need appropriate analyzing method than that applied for usual arrayed infrasound sensors. In this talk, we will introduce our observation design of the network as a model case and the obtained datasets for consideration of tsunami and the other disaster preventions.