The current status of the infrasound observation network for improving the tsunami warning system

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Sensitive microbarographs in and around Japan recorded unequivocal signals associated with the 2011 Off the Pacific Coast of Tohoku, Japan earthquake (Mw = 9.0).
We identify them as atmospheric boundary waves excited by the uplift and subsidence of the ocean surface (tsunami generation), on the basis of the waveform characteristics as well as similarity with the data from ocean-bottom pressure gauges.
It is noted that the atmospheric boundary waves, once excited, travel in the atmosphere significantly faster than the tsunami waves in the ocean. In addition, they retain the original shape of the tsunami, because they are little dispersive. Establishment of a network of infrasound observation along the coast line facing the subduction zone would improve the tsunami warning system, because it would provide information on the tsunami source.
In order to achieve this conception, we have developed a prototype system of the infrasound observation network and started to observe the atmospheric pressure changes associated with tsunami generation by deploying of three infrasound observation sites in Ofunato city of Tohoku region on July 2013. In addition we caused expansion of this network by newly deploying of infrasound observation sites in Mie prefecture of Tokai region on Jun 2015.
Now, based on the findings of the observation, we are discussing what the observation network should be, where and how a prototype system would be deployed.
In this presentation, we would introduce our discussing.

[References]
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