Development of education contents for schools using observation data provided from MeSO-net project

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The 'Special Project for Earthquake Disaster Mitigation in Tokyo' has been started since 2007. In this project, more than 400 seismic stations will be installed in the schools of the metropolitan area. This seismological network is called alias 'MeSO-net'. Although the major purpose of this project is the research for the earthquake disaster prevention and the disaster mitigation, it is one of the purposes to use acquired data for the disaster prevention education and the science education at the same. In this presentation, we will report on the development of contents for the school education that uses the MeSO-net data.

Not only the seismograph but also an environmental weighing device (temperature and atmospheric pressure) is also set up in each observation point of MeSO-net. It is thought that information profitable for the school education can be offered by using these data effectively. For instance, teachers may show the ground motion at each school in real time to students when the earthquake occurs, and examine how to travel P wave and S wave by using actual data of a recent earthquake. The concern of the earthquake can be increased by showing the waveforms of the experienced earthquake to students at once, and it be expected that the idea of disaster prevention can be deepened more. In addition, the advantage that the data of 400 points is deliberately arranged in the narrow zone can be made the best use of, and the appearance to which the seismic ground motion spreads be displayed like animation.

On the other hand, the large effects may be expected in the field of education of meteorology by using the data of the temperature and the atmospheric pressure obtained from MeSO-net. For examples, we can demonstrate the passage of a cold front to students using the change in the temperature, show the change of atmospheric pressure when the typhoon has approached and investigate the heat island phenomena.

At present, the ground motion, the temperature, and the atmospheric pressure can already be referred to through the Web site at schools where the seismograph has been installed. The mechanism of a real-time information presentation that uses them is gradually in order, too. However, it is necessary to develop more sophisticated contents like as diagrams and movies and to fit those contents to school content in order to offer contents that can be actually used in the school education. It is also necessary to take the opinion and the demand of the teacher on the site for that. Then, to advance the development of contents for the school promptly, 'WG for the MeSO-net school Contents' was started up. It calls for the participation of teachers who are interested in MeSO-net and the teaching material making now. We will plan to progress the development of many school contents through the activity of the WG, and holding the forum in the future.