

Current Status and Issues of the Broadcast Start Condition of Earthquake Early Warning

TAKANO, Kiyoshi^{1*}

¹III and ERI, the University of Tokyo

In-site broadcasting system is widely used as a means of transmitting of earthquake early warning. But about the current situation of the broadcast start condition, it is determined by the user who introduced it in consultation with providers. For example, if there is a hazardous material in the building, it will be broadcast starting at predicted seismic intensity 3 or more. On the other hand, in the building with no less hazardous materials, it will be broadcast starting at predicted seismic intensity lower 5 or more. The current situation of the broadcast start condition is as described above; the users have determined in consideration of the user environment.

The document, which serves as a reference in the broadcast start condition to determine appropriate, did not exist until the JMA had published guidelines in April 2011. In this guideline, in particular, for the case of in-site broadcasting towards an unspecified number of people, it has been recommended to broadcast suited to the alarm condition of earthquake early warning of JMA.

The alarm condition of earthquake early warning in JMA is, "it is issued for areas predicted strong shaking (seismic intensity lower 5 or more) and for areas where seismic intensity 4 is predicted when if seismic wave were observed at more than two seismic stations and the seismic intensity was predicted to lower 5 or more". And to match in this, mobile phone companies and commercial televisions have broadcast the earthquake early warning in areas where JMA issued an alarm.

At the beginning, we also have set the broadcast start condition of our in-site broadcasting system to match to this alarm condition in JMA. Furthermore, we have operated by setting the "broadcast start condition for giant earthquakes" by using the combination of not only predicted seismic intensity but also predicted magnitude because from the fact that at the time of the Tohoku Giant Earthquake, the predicted seismic intensity at the alarm of earthquake early warning was much lower than the actual.

However in the period of one year from the start of the operation, there were three broadcasting occurred but in those case the real seismic intensity were 2 or 3 and as a result, these broadcasting became the excessive broadcast.

In this opportunity, I would like to report on the results of review for broadcast start condition of earthquake early warning. And I hope to discuss issues for better broadcast start condition and realizing it.

Keywords: Earthquake Early Warning, Broadcast Start Condition, Alarm Condition