What has been learned and what should be done

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As one of the organizing committee members for ESG 1992 international symposium, some comments are made on the blind predictions.

WHAT HAS BEEN LEARNED

During the symposium, lively discussions were held based on the statistical summary of the blind prediction results and the observed data. The results showed scatter among themselves and in some cases deviation from the observed data. Degrees of the scatter and the deviation depended upon test sites, kinds of outputs, and components.

One word summary of the discussion may be made as follows : all the items of the potential problems have been pointed out (e.g. input motion, geotechnical data, non–linearity, topography and stratigraphy).

One may offer a critical view that these items of the potential problems are obvious and nothing new has been learned from the blind predictions. This may be in a sense true but the results of the blind predictions gave us more tangible ideas on what the potential problems are in evaluating the effect of surface geology.

WHAT SHOULD BE DONE

Enormous efforts had been paid in preparing the blind predictions by each participants. Enormous efforts had also been paid in preparing the statistical summary of the prediction results. There is still much to do for a more in–depth understanding on the subjects from what is buried in the blind prediction results.

As an example, some of the prediction results from the Ashigara Valley Tests are chosen and shown in Fig.1. All the results were computed by the 1–D equivalent linear methods, with parameters determined based on
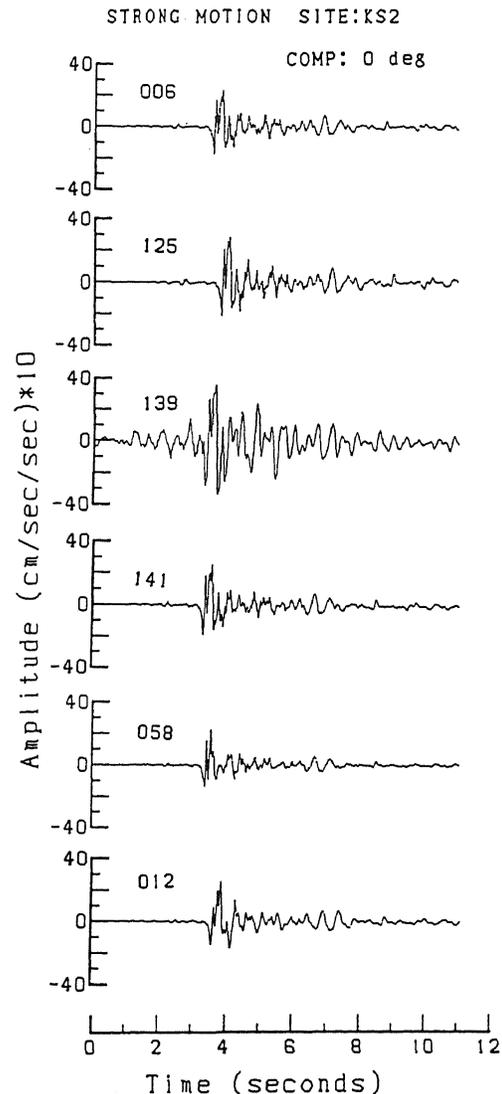

Fig. 1 Blind prediction results by 1–D equivalent linear methods for Ashigara Valley Tests

the same standard geotechnical data. The results were at the KS2 site for the strong motion event. As shown in this figure, the same and very simple method resulted in a certain difference among themselves. One may well ask himself a question as to "why ?"

As shown in this example, more oriented and more well focused study will be necessary in the next step of the blind prediction. This is easy to say but will not be easy to do. We, with all of you who are interested in this attempts, can begin with answering questions such as "am I ready to do it myself ?"