

## The JMA earthquake Magnitudes(Displacement magnitudes)

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The JMA updated seismic observation network completely in 1994. To examine a consistency of magnitude determined by JMA(henceforth  $M_j$ ), we studied influence of the change of network on  $M_j$ . There are two factors that should be considered. The first factor is a difference in site condition and the other is a differences in frequency response of seismogram.

To examine the difference in site condition, we used acceleration data from seismic intensity meters which remain in the same sites of the old network. A comparison of the emulated seismograms with seismograms of the new network suggested that the new network provide smaller value for  $M_j$ . Broader bandwidth of displacement seismogram of the new network produces slightly larger magnitude, compared to the seismograms of the old network.