

The file provides the numerical values of completeness magnitude for the recent Japan Meteorological Agency (JMA) catalogue (2006-2010, depth ≤ 30 km). The detail of the estimation is described in

Iwata, T., Estimation of completeness magnitude considering daily variation in earthquake detection capability, *Geophys. J. Int.*, 2013, doi:10.1093/gij/ggt208. (referred to as IW2013 hereafter)

Values in each of the columns in the file represent as follows:

- lon, lat** longitude and latitude of a gridpoint
- radius** the radius of the circular cylinder to contain 300 earthquakes (in km, Figure 1)
- mu (μ), sigma (σ)** parameters associated with the detection capability of earthquakes (see eq.(2) of IW2013); μ denotes the magnitude at which 50% of earthquakes are expected to be detected (Figure 2).
- 98%** the magnitude at which 98% of earthquakes are expected to be detected (Figure 3).
- 99.9%** the magnitude at which 99.9% of earthquakes are expected to be detected (Figure 4).

If you have any question, please feel free to contact iwata@ism.ac.jp.

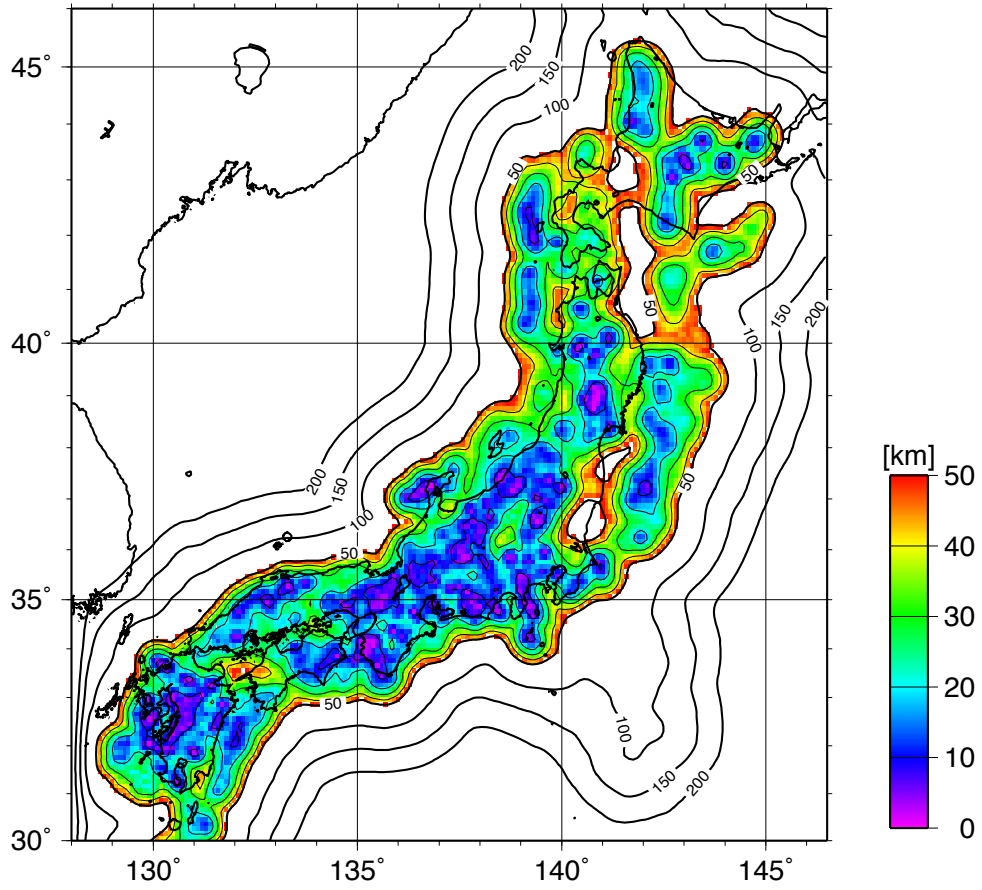


Figure 1: Radii of the circular cylinders containing 300 earthquakes for each of the gridpoints (modified from Fig. 5 of IW2013)

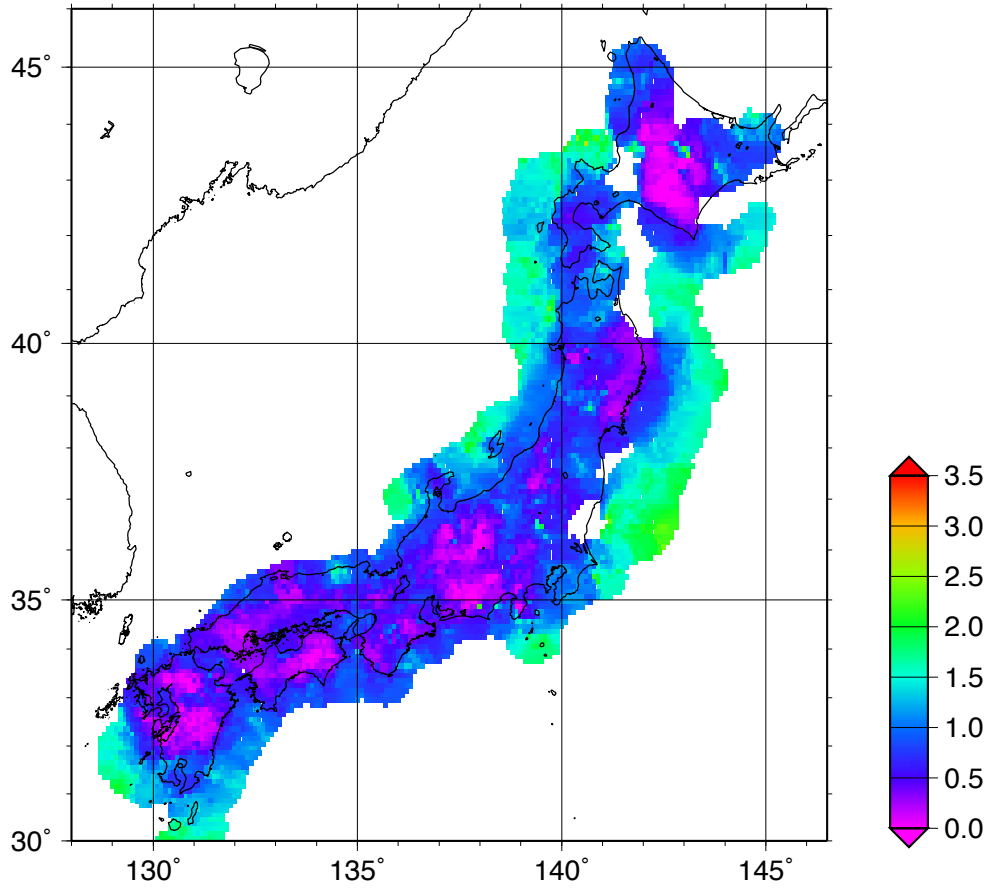


Figure 2: Magnitude at which 50% of earthquakes are expected to be detected (modified from Fig. 6a of IW2013)

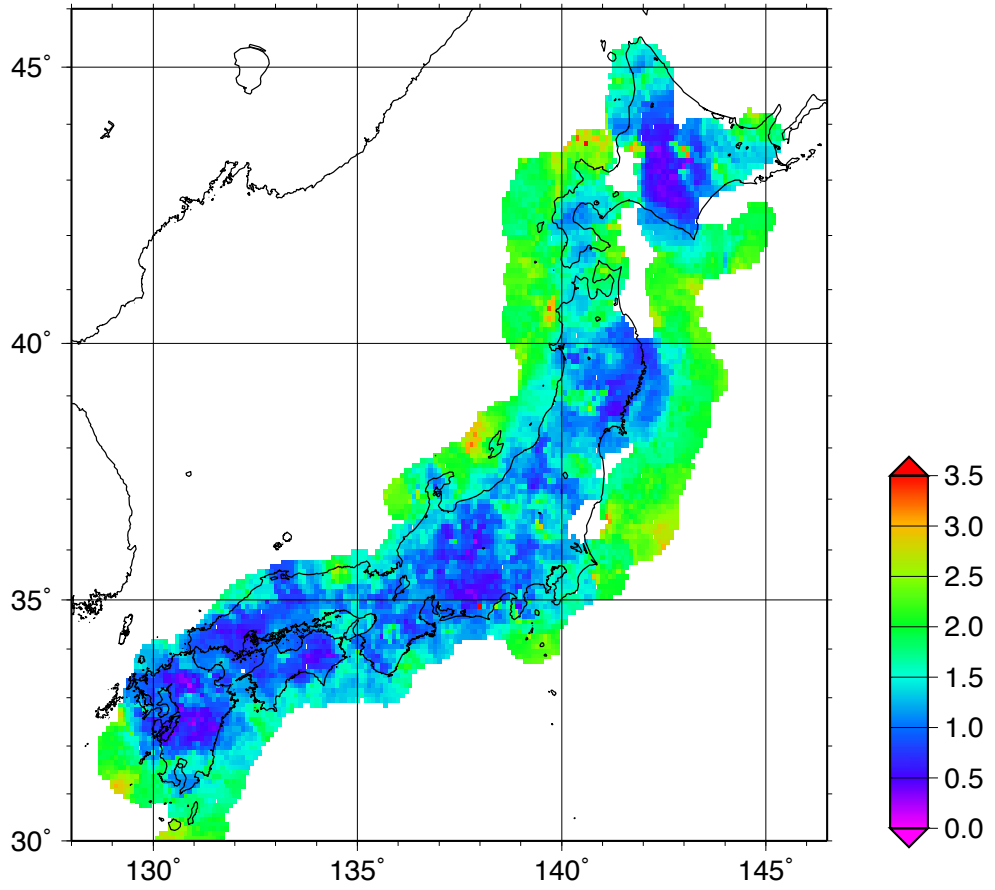


Figure 3: Magnitude at which 98% of earthquakes are expected to be detected (modified from Fig. 7a of IW2013)

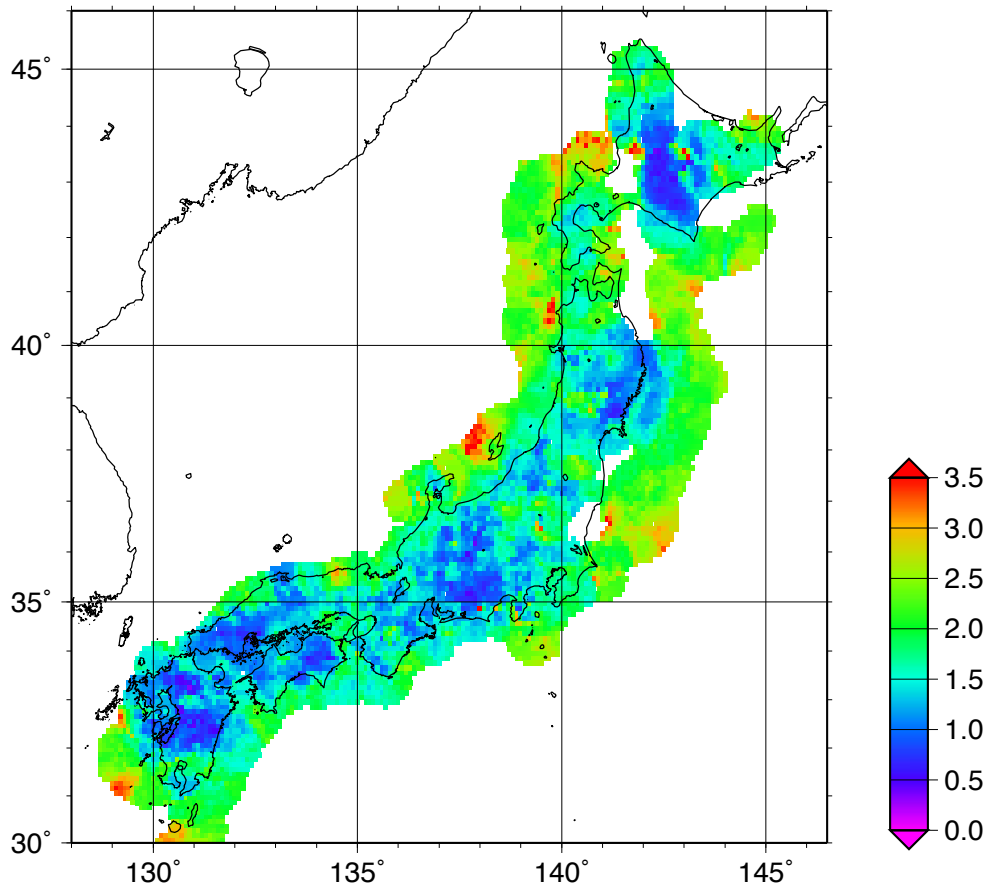


Figure 4: Magnitude at which 99.9% of earthquakes are expected to be detected (modified from Fig. 8a of IW2013)