

The historical study and the quest for old waveform records worldwide to reveal sources in the concentrated deformation zone

Ritsuko Matsu'ura[1]; Mitsuko Furumura[1]; Mayumi Sekine[1]; Koji Iwasa[1]; Tomotsugu Demachi[1]; Yasunori Suzuki[1]

[1] ERC, ADEP

<http://www.adep.or.jp>

We have been examined Japanese disastrous earthquakes in early modern with the historical seismology technique. For the concentrated deformation zone, 20 from 29 events of this area have been already analyzed. During this project, we will analyze 9 left events such as 1833 off-Shonai-Basin earthquake. From Meiji-era to the present, 24 disastrous earthquakes are known there. 14 of them are M7.0 or larger. We are also doing the analysis of those modern events in a similar way.

We also collect waveforms of old events worldwide as high resolution images of the whole smoked paper-records by the careful ways for not to damage the original records. As the first year of the project, we tried Tohoku district stations. However, only few records have survived in this district. As the teleseismic waveforms, records of Gettingen in Germany were obtained for the first year. The minute research on early modern and modern seismicity, we will contribute to construct the expected source process of the future events in the eastern margin of the Sea of Japan.