

Improvement of the accuracy of the unified Japan Earthquake Catalog using ocean bottom seismographs

*Hiroshi UENO¹, Mitsuharu Ueda¹, Hiromi Misu¹, Hirofumi Yokoyama¹, Yuriko Iwasaki¹, Iwakiri Kazuhiro¹

1. Seismology and Volcanology Department, Japan Meteorological Agency

The Unified Earthquake catalog for Japan has already been made available to the public by the Japan Meteorological Agency (JMA). In this catalog, hypocenters are determined using high-density seismic data collected by Japanese institutes and universities.

Recently, many ocean bottom seismographs(OBS) were installed around Japan Trench and Nankai trough.

In order to utilize many OBS data, we will optimize the hypocenter determination method of JMA from the following viewpoints.

1. Applications of the correction travel times of OBS for sedimentary beneath OBS.
2. Applications of velocity structures for OBS stations estimated from some velocity structure investigations.
3. Applications of the correction values of OBS for calculating magnitude with velocity amplitudes.

Keywords: Unified Japan Earthquake Catalog, Ocean bottom seismograph, hypocenter determination