

Seismicity around the Yamasaki fault area

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1. Introduction

Since 1977, several earthquakes greater than M5 occurred around eastern Chugoku and northern Kinki region, Japan; 1983 Tottori-ken Chubu earthquake (M6.2), 1984 middle Hyogo earthquake (M5.6), the swarms occurred at western Tottori in 1989, 1990 and 1997, 1991 eastern Shimane earthquake (M5.9), 1995 Hyogo-ken Nanbu earthquake (M7.3), 2000 Tottori-ken Seibu earthquake (M7.3), 2001 northern Hyogo earthquake (M5.4), and 2002 middle-western Tottori earthquake (M5.3).

2. Seismicity around the Yamasaki fault area

Watanabe et al. (1997) suggested that the seismicity along Yamasaki fault is not the aftershocks of 868 Harima earthquake (M7) and/or 1864 Yamasaki Sugiharadani earthquake (M6 1/4) but caused by the Yamasaki fault area itself as an active fault.

The seismicity around the Yamasaki fault changed before and after the occurrence of several earthquakes; (A) 1983 Tottori_ken Chubu earthquake, (B) 1984 middle Hyogo earthquake, (C) 1995 Hyogo_ken Nanbu earthquake, and (D) 2000 Tottori_ken Seibu earthquake.

There have been no earthquake greater than M3.5 between 2000 and January 13, 2004. More than 1100 years elapsed from the Harima earthquake.

We present the results of analyses to characterize the seismicity with several large earthquakes (A-D). We also discuss the seismicity of the segments of the Yamasaki fault system, which is extracted by the dividing the fault system to several areas.