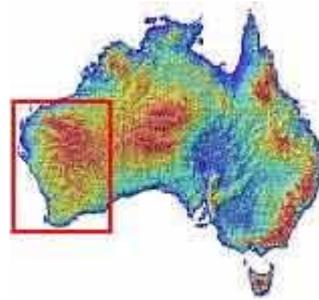


# Meeberrie Earthquake

**Date:** 29 April 1941  
**Time (local):** 01:35.39 am  
**Latitude:** -26.90  
**Longitude:** 115.80

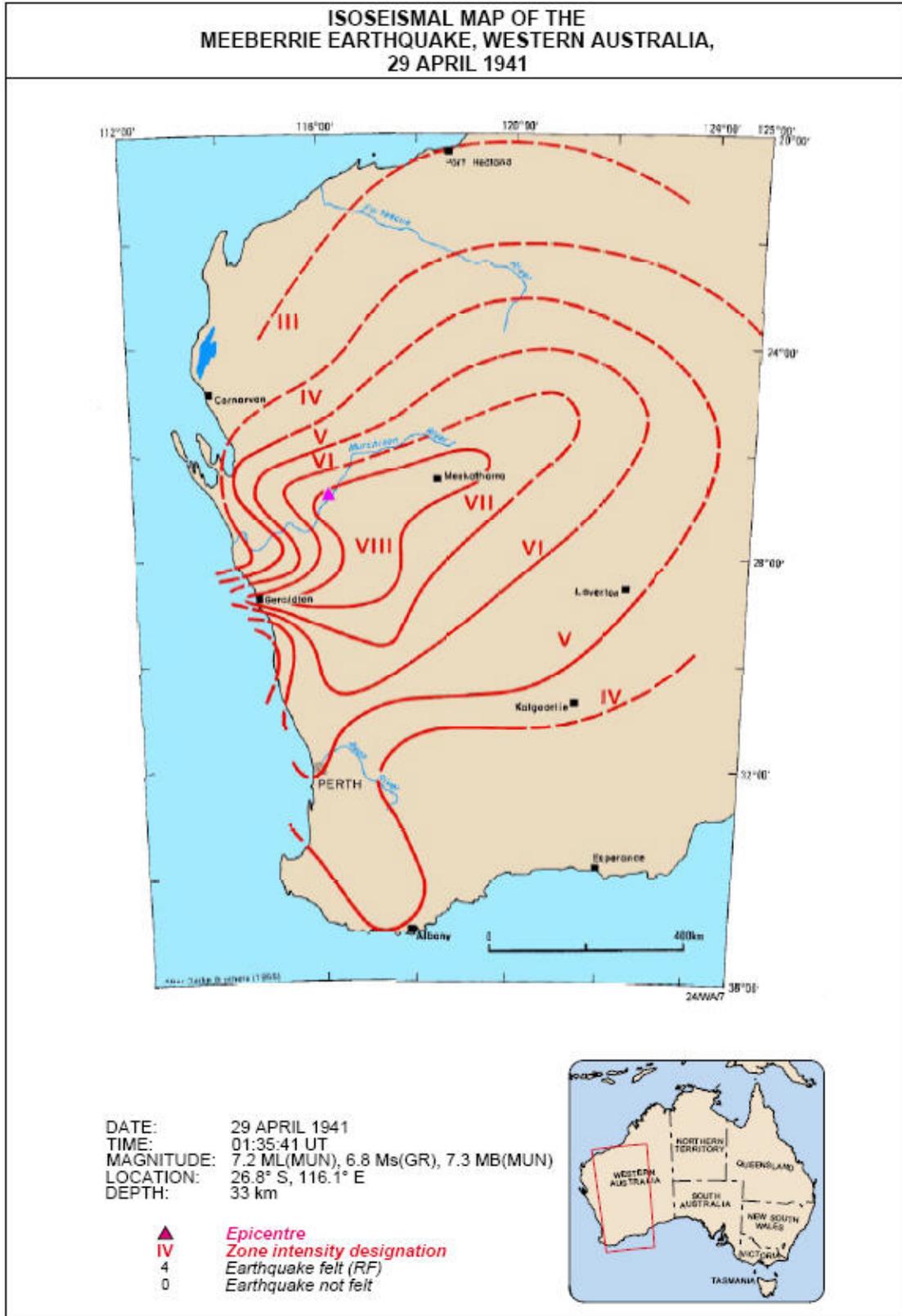
**Magnitude:** 7.2 (ML)



The Meeberrie earthquake is the largest known onshore Australian earthquake. Its magnitude was ML 7.2 and it was felt over a wide area of Western Australia as shown on the isoseismal map below, from Port Hedland in the north to Albany and Norseman in the south.

Damage from the earthquake was small because of the low population density in the epicentral region, but the shaking at Meeberrie homestead was very severe; all the walls of the homestead were cracked, several rainwater tanks burst, and widespread cracking of the ground occurred. Minor non-structural damage was reported in Perth more than 500 km away from the epicentre.

Denham (1979) published a BMR map using 50 reports but the data have subsequently been reinterpreted and the map re-drawn because the intensities around Perth given by Denham (1979) were too high. The main difference is that, in the revised map shown here, the area enclosed by the MM V isoseismal is smaller than in Denham's (1979) map.



Although questionnaires were distributed by the Western Australian Government Astronomer at the time; these have not been traced to date and, consequently, our knowledge of this earthquake is restricted to contemporary reports in local newspapers (Denham, 1979) and to a report from Meeberrie homestead that was unearthed by Everingham (1968).

An extract from this report is worth repeating:

*"At approximately 9.45 am, a slight tremor was noticed, and this increased in severity and noise until the building began to shake in an alarming manner, and then began to roll considerably. Loose articles were shaken off shelves, cupboard doors were blown open and the contents strewn on floors, walls cracked and plaster fell both from inside and outside the buildings and was scattered everywhere. This sort of thing went on for about five minutes, when the shaking and trembling gradually died down. From outside it was easy to see the buildings rolling from side to side.*

*Every wall in the homestead, quarters, engine room, meathouse and cellar were cracked right through, some from floor to ceiling, and nearly all in the corners and over window and door heads.... A 700 gallon rain water tank rocked on its foundations and eventually burst at the bottom, and the precious contents lost, also all other rainwater tanks were found to be leaking.*

*Subsequent to the big shock, smaller ones were felt during the day and night.*

*Mt Narryer station, distant about 28 miles due north of Meeberrie and Wooleen station 15 miles south of east from here both received damage of similar nature to Meeberrie when the quake occurred but got off far more lightly."*

A large Recent fault scarp some 35 km long and 2 m high has been mapped in the vicinity of Meeberrie station but conventional wisdom has it that this scarp predates the 1941 earthquake. A paleo-seismological study of this scarp has yet to be done.

**References:**

- Denham, D., 1979 - Earthquake hazard in Australia. In HEATHCOTE, R. L., and THOM, B. G. (Editors) - NATURAL HAZARDS IN AUSTRALIA. Australian Academy of Science, Canberra, 94-118.
- Everingham, I.B., McEwin, A.J., and Denham, D., 1982 - Atlas of Iseismal Maps of Australian Earthquakes. Bureau of Mineral Resources, Australia, Bulletin 214.
- Everingham, I. B., 1968 - Seismicity of Western Australia. Bureau of Mineral Resources, Australia, Report 132, 38-39.