

List of earthquakes in South Africa



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The following is a list of notable earthquakes or tremors that have been detected within South Africa.

According to Professor Andrzej Kijko from the University of Pretoria's Natural Hazard Centre, mining can activate natural faults. He believes that 95% of South Africa's earthquakes are caused by mining, especially around the areas of Klerksdorp, Welkom and Carletonville. According to earth science consultant Dr Chris Hartnady, "This part of Africa is in the vicinity of the African Rift system, which is being pulled apart by a few millimetres annually." He says "earthquakes are caused by a slip on a fault line and the release of stored elastic energy" and mining activity can trigger earthquakes.[1]

Earthquake data



USGS seismicity map for South Africa

For earthquakes prior to the modern era, the magnitude and <u>epicentre</u> location are only approximate, and were calculated based on available reports from the time. The magnitude where given is measured using the <u>Richter scale</u> (M_L) unless stated otherwise.

20th and 21st century

Date	Time (SAST)	Epicentre	M_L	Depth	Notes
29 September 1969		Near <u>Tulbagh</u>	6.3		The 1969 earthquake remains the most destructive earthquake in South African history. The earthquake occurred in the Tulbagh area and measured 6.3 on the Richter scale, stronger than that of the 1809 Cape Town earthquake which destroyed a local Milnerton farm. [2][3]
8 December 1976		Welkom	5.2		Four miners were killed. ^[4]
26 September 1990		Welkom	4.2		Two people were killed. ^[4]
9 March 2005		Stilfontein, North West	5.3		Two miners were killed underground.[5][6]
28 May 2013		Near <u>Mbabane</u>	4.0		The earthquake was felt in <u>Newcastle</u> and lasted about six seconds. ^[7]
22 June 2013	07:08	Thabazimbi, Limpopo	3.9	9 km	The earthquake was felt up in the Thabazimbi area.[8]
7 July 2013	16:52	Barberton, Mpumalanga	4.7	5 km	The earthquake was felt in the <u>Barberton</u> area. ^[9]
11 November 2013		University of Johannesburg, Johannesburg, Gauteng	4.0		The earthquake was felt as far as parts of northern and southern Johannesburg and lasted for around 10–15 seconds. [10]
2 December 2013	21:18	~25 km south of Bela-Bela, Limpopo	4.8	5 km	The earthquake was felt as far as Parkhurst and Randburg in Johannesburg, Hartebeespoort Dam in North West, Witbank and KwaMhlanga in Mpumalanga, and Soshanguve near Pretoria. [11][12]
15 June 2014	18:16	Near <u>Orkney,</u> North West	4.9 M _W	5 km	The earthquake was felt up to Potchefstroom. [13]
5 August 2014	12:22	Near <u>Orkney,</u> North West	5.5	5.0 km	The earthquake was felt as far as parts of Botswana and Durban, it lasted for around 90 sec. The local Council for Geoscience measured the earthquake at 5.5 on the Richter scale, while the United States Geological Survey recorded a moment magnitude of 5.4. [14][15][16][17]
22 August 2014	1:14	Near <u>Orange</u> <u>Farm,</u> <u>Gauteng</u>	3.8	10 km	The second earthquake in South Africa in less than three weeks. No reports of injuries. The Council for Geoscience (CGS) in South Africa reported an earthquake of 3.8 with two aftershocks occurring within minutes of each

Date	Time (SAST)	Epicentre	M_L	Depth	Notes
					other of 3.2 and 2.0 respectively. ^[20]

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External links

- Council for Geoscience (http://www.geoscience.org.za)
- South Africa Earthquake Information United States Geological Survey (https://earthquake.usgs.g ov/earthquakes/world/index.php?regionID=34)

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