

PSN stations in Eastern Australia

*In conjunction with --
Regional-seismic website of the
Australian centre for Geomechanics,
Perth, WA*

Edition 1- 9th Dec 2009 Dec 2009



Mt Torrens School, South Australia
(site of a PSN recorder)

Mission statement

**Promote interest in seismology in school students and teachers and the public in general
Collect useful scientific data to assist in the study of Australian seismology**

History

The Public seismic Network (PSN) is the brainchild of Larry Cochrane, of Redwood City, California. Larry manufactures his seismic Analogue-digital converter and markets it through his business, Webtronics. The necessary software (winsdr) is available for free download from Larry's website (www.quake.net)

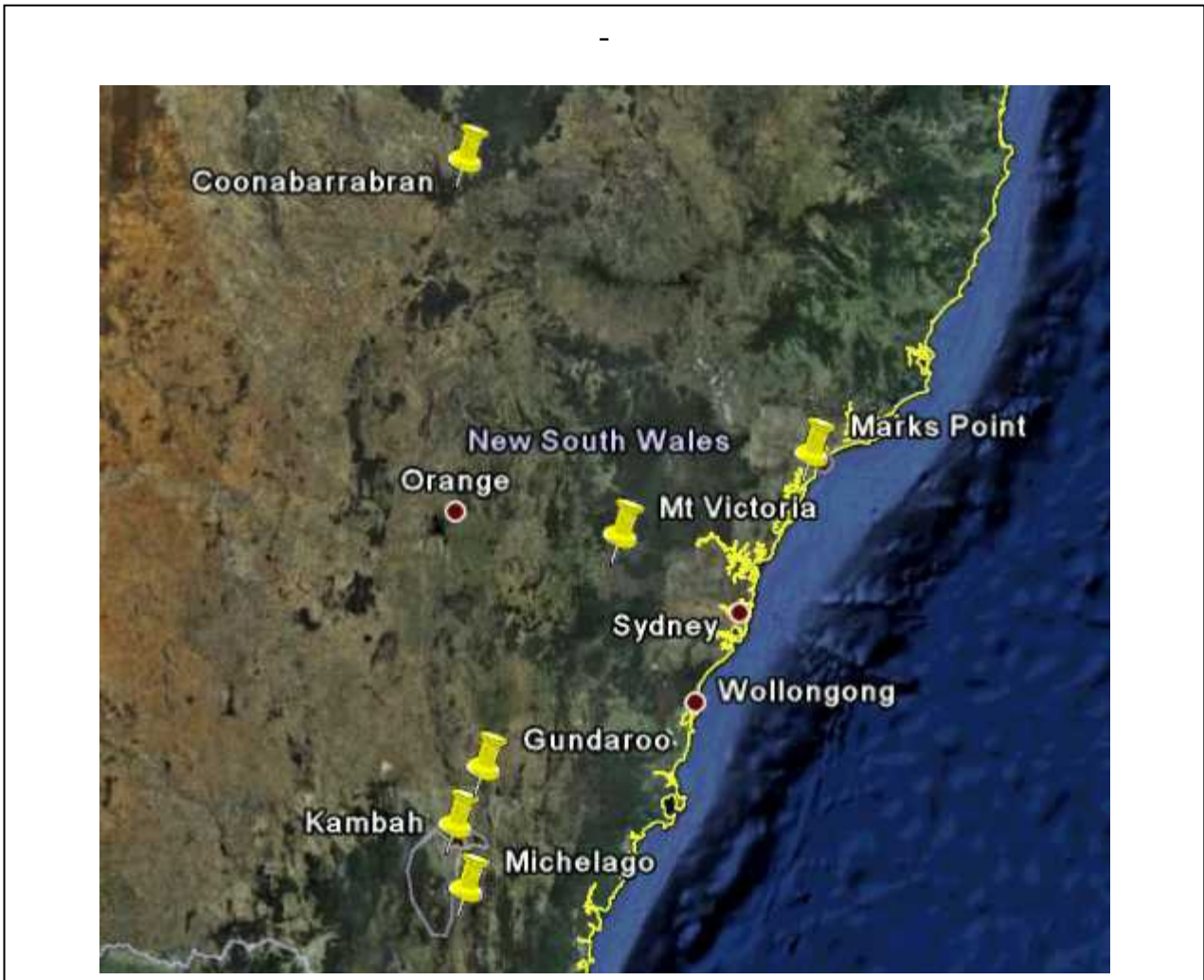
The Australian Centre for Geomechanics (ACG) sought to provide a budget seismic monitoring system for miners. After initially testing a prototype system developed by Glenn Self and Vic Dent, the ACG moved on to a PSN prototype being used by Arie Verveer at the Bickley Astronomical Observatory near Perth.

The ACG initially developed a network of seismographs in the Kalgoorlie Boulder area, and followed this up with networks around Leinster (WA), Broken Hill (NSW) and Beaconsfield (Tas). Access to these networks is restricted to the mining companies who are supporting the ACG network. However, the ACG has allowed an alternative network, with access available to interested individuals.

The present system in Australia has developed out of ACG's aim to provide a budget seismic monitoring system for miners

WEBSITE www.regional-seismic.net

Map of station Locations



Michelago

Location : approx 50 km south of Canberra

Operational period : 1998 – Nov 1999

Operator : Jenny Goldie

Sensor initially Willmore, later Mark Products geophone

Timing : GPS

Coordinates 35.7847S 149.1440E

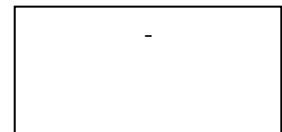
Closest ANSN station -- CAN Canberra (Mt Stromlo)

Recent felt events : Michelago event of 31 Dec 1998 (mag 3.2)

Comment1 : very quiet site after moved to rock location in July 2009

Comment2: intermittent operation

Comment 3 : closed Nov 2009 and moved to Kambah ACT



Gundaroo

Location : Gundaroo Primary school approx 40 km North of Canberra

Operator; Sue Kominek, principal sue.kominek@det.nsw.edu.au

Operational Period : 1997 ---- >>>

Sensor : Willmore mark II

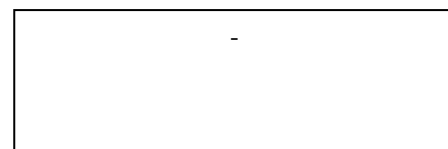
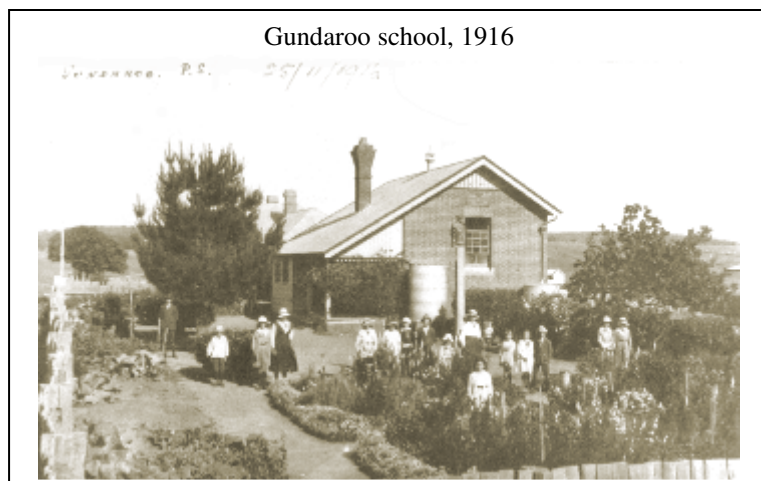
Timing : GPS

Comments: good location, but picks up movement in Admin building

Coordinates 35.032S 149.268E

Closest ANSN station - CNB Canberra (near Queanbeyan)

Recent felt events



Mount Victoria

Location : Mt Victoria Primary School, approx 20 west of Katoomba

Operational period : 02 Dec 2009 -- >>

Operator : Toni Imrie mtvictoria-p.school@det.nsw.edu.au

Willmore mark II

Timing : GPS

Coordinates 33.5918S 150.2540E

Closest ANSN station RIV Riverview College, Sydney

Comment1 : picking up highway noise (about 200 m from main road)

Recent Felt events : Lithgow event 01 Nov 2005 Mag 3.1



Mount Victoria NSW

Coonabarrabran

Location Approx 200 km west of Tamworth

Caption



Operator : Andre Phillips

: email michael.andre.phillips@gmail.com

Coordinates 31.2733S 149.0643E

Website : www.map.id.au/Seismic

Sensor : several - Volksmeter, geophones etc

Nearest ANSN stn CMSA Cobar met Station

Comments : a very good, quiet site inside a custom made vault

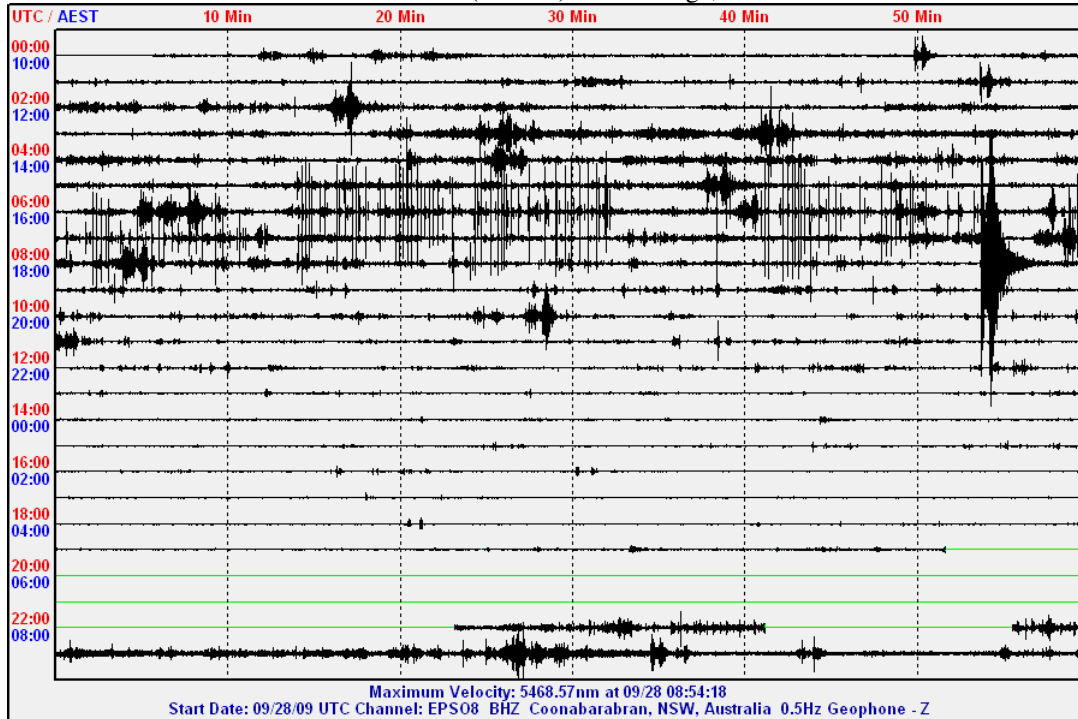
Comment 2 : owned & operated by Andre

Comment 3 : Not a part of the regional seismic network.

Comment 4.Raw binary data may be available via website soon

Comment : new vault & equipment in Aug 2009 & renamed Edward Pigot Seismic Observatory

Mine-related seismic event (ML 3.2) from Orange, recorded at CBRR



PSN Station Book

Mount Torrens (South Australia)

Location - Mt Torrens Primary school - approx 40 Km E of Adelaide

Operator Garry McPherson, principal, Mt Torrens

email : garry.macpherson@mtorrenps.sa.edu.au

Operational period -- opened November 2008

Coordinates 34.87S 138.96E

Closest SADME station - UTT (Upper tea Tree)

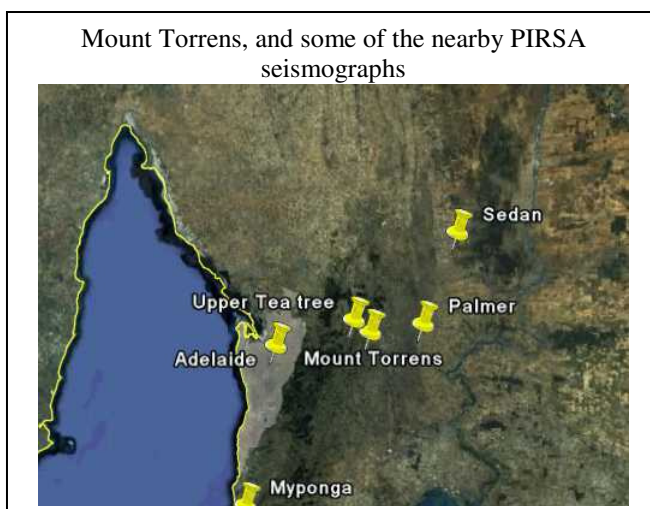
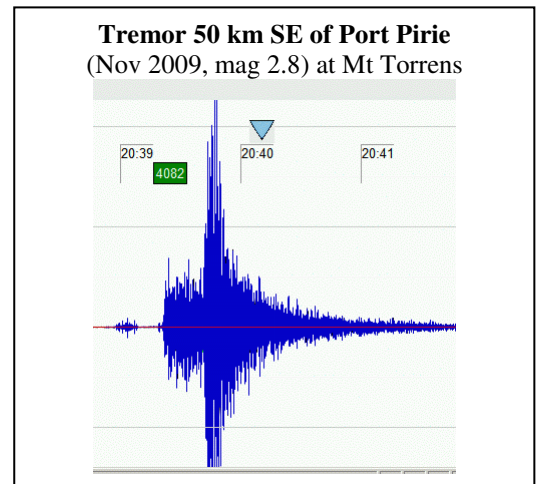
Timing : GPS after August 2009

Sensor : Mark Products 3 component geophone

felt events - Adelaide 1954 ??

Comments 1: reduced background noise after geophone relocated from school building to a pit outside on 03 October 2009

Comments 2: is close to a relatively busy road, causing some interference





Marks Point

Location : Mark's Point, approx 20 km Sth of Newcastle

Operator : Dale Hardy dale@daleh.id.au

Operational Period : commenced 2005

Coordinates: 33.055S 151.640E

Website : www.daleh.id.au

Sensor : several, including Willmore Mark II and home-built Lehmann LP sensor

Timing -- internet

Closest ANSN station -- MGCD (Mangrove Creek Dam)

Comments 1 : soft rock foundation seems to mean that few local events are recorded. Teleseisms are recorded on Dale's custom-made Lehmann style sensor

Comments 2: Dale owns all his own gear – connected to regional-seismic net in January 2009

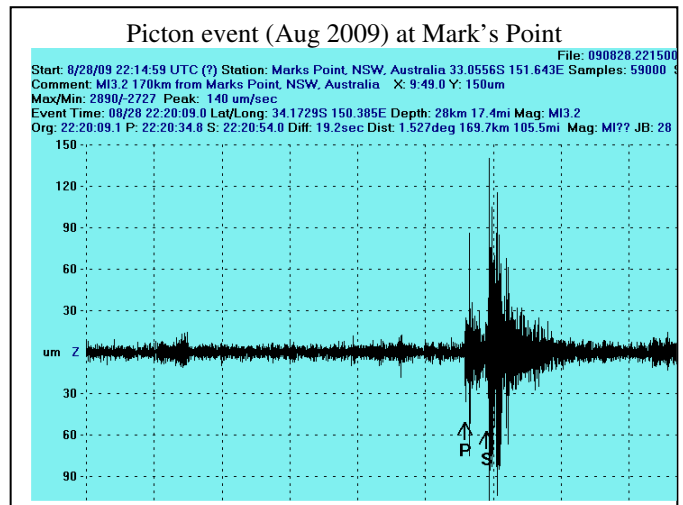
Recent felt tremors : Newcastle event Dec 1989, Ellalong 1994



Dale's vault, showing Willmore and geophones



Outside view of vault



Kambah ACT

Location - Kambah ACT – approx 13 km SSW of Canberra city centre

Operator – Marion Leiba email : marion_leiba@yahoo.com 026231 9476

Operational period -- PSN system opened Nov 2009 (MEQ seismograph station opened December 1985)

Coordinates 35.3892S 149.0786E

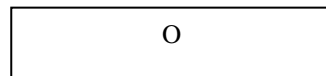
Closest ANSN station - CAN (Mount Stromlo)

Timing : Internet for PSN system (GPS for MEQ)

Sensor : Mark Products 3 component geophone

felt events: ML 1.2 in December 1990 (“Kambah” event)

Comments 1: The new PSN station is being run alongside Marion's long-running MEQ recorder



PSN stations in Western
Australia



WA stations

- Gnowangerup
- Helena College
- University of WA
- Beacon Primary
- Broome High School

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