

# THE VICTORIAN GEOLOGIST



February 2013

THE GEOLOGICAL SOCIETY OF AUSTRALIA  
Victoria Division

## Next General Meeting

Thursday 28th February at 6:15 p.m.

### **Earth Science education in Australian schools: Where have we come from, where are we now, where are we going and where does Victoria fit in?**

**Greg McNamara**

**Fritz Loewe Theatre, School of Earth Sciences, University of Melbourne**

Talks will be preceded by drinks from 5:30pm in the 4th floor tearoom, cost \$2

The Australian education system is a State-based system and historically each state has had responsibility for curriculum design and implementation. Federal funding for key aspects of education at the state level has varied over time and a national curriculum, while mooted on numerous occasions, has eluded us until recently.

The Earth Science elements of each F-10 state curriculum has also varied widely. This has probably resulted in an uneven distribution of basic understandings in Earth Science across the nation but with little or no accountability over the details of content delivery in any jurisdiction there is no reliable base line data more than a few years old. Anecdotal evidence suggests Earth Science content has usually been under-delivered when compared with other science topics.

A new Australian curriculum for F-10 Science has been agreed upon and is currently being rolled out. The Earth Science content of this national curriculum is discussed compared with various state versions from previous years. The current Victorian approach is discussed. 2012 saw teachers in Victoria begin to seriously address this roll out with the Victorian Curriculum and Assessment Authority migrating from the Victorian Essential Learning Standards (VELS) to AusVELS. Victorian 2013 science teaching will be based on AusVELS. Progress towards full national implementation of the F-10 science curriculum is discussed and problems highlighted.

A new national senior Earth and Environmental Science course has also just been finalised. The history surrounding senior geology courses in Australia is discussed and possibilities for overcoming historical problems is outlined and Victorian issues highlighted.

## WELCOME BACK FOR 2013

The GSA would like to welcome back all our returning members as well as welcoming our new members for 2013. We have a number of speakers and activities lined up for this years seminar program so stay tuned for the details in the near future.

Note also that the **March and April meetings have been shifted** due to the Easter period and ANZAC day. Revised dates on Page 5.

## SCIENCE NEWS

Originally reported in The Age, Feb. 18, 2013

A meteor that exploded in the skies above Russia's Ural Mountains was the largest since the Tunguska blast in Siberia in 1908 and released about 33 times the energy of the atomic bomb that destroyed Hiroshima. Before hitting the Earth's atmosphere on Friday, the object was about 17 metres in size and had a mass of about 10,000 tonnes, NASA said. Russian scientists offered vastly different statistics, saying the meteor weighed about 10 tonnes. The meteor, which hit 16 hours before an asteroid half the length of a football field hurtled past Earth, has prompted calls for more vigilance about the risks of strikes from space. Every day, 100 tonnes of dust and sand-size particles enter the Earth's atmosphere, most of which burns up.

"We would expect an event of this magnitude to occur once every 100 years on average," Paul Chodas of NASA's Near-Earth Object Program Office said. The Chelyabinsk meteor released 500 kilotons of energy when it disintegrated above the city of Chelyabinsk about 9.20am local time, according to NASA. The atomic bomb dropped on Hiroshima in 1945 was 12-15 kilotons.

Unrelated to asteroid 2012 DA14, which flew past by Earth safely, the Chelyabinsk meteor hit the atmosphere at a speed of 18 kilometres per second (40,000 miles per hour) and took 32.5 seconds to break apart 15 kilometres to 25 kilometres above the Russian city, according to NASA. The shock wave from the meteor blew out windows in 3700 buildings in and around Chelyabinsk, the regional government said in a statement. About 1150 people sought medical attention, of whom more than 50 were hospitalised, the Russian Health Ministry said. Burning streaks lit up the sky in videos that were caught by drivers on dashboard cameras, broadcast on Russian television and posted on YouTube. The force destroyed a warehouse wall at the OAO Chelyabinsk Zinc Plant and disrupted service from Russia's second-biggest mobile operator, OAO MegaFon.

## CONFERENCE NEWS



REGISTERING NOW: [www.anzmaps.org](http://www.anzmaps.org)

**Australian and New Zealand Map Society  
(ANZMapS) - 40th Annual Conference**  
"The Metropolis and Beyond: mapping the natural  
and built environments"



**State Library of Victoria, 328 Swanston Street Melbourne, 9-12 April 2013**

The Australian and New Zealand Map Society celebrates the 40<sup>th</sup> anniversary of the Australian Map Circle, established in 1973, and recognizes the support of the State Library of Victoria, major sponsor of this year's event.

The conference commences Tuesday 9 April with the ANZMapS AGM, 5.00pm at the State Library's beautiful "Red Rotunda" room, followed by a Reception at 6.00pm. Venues: <http://www.slv.vic.gov.au/services/functions-venue-hire>

Conference papers will be presented in the Library's Conference Centre (entry from La Trobe Street), 9.00am – 5.00pm Wednesday 10 and Thursday 11 April. Lunches and teas provided as part of registration.

A full programme of presentations will be launched by Keynote speaker Professor Peter Stanley. Peter is author of many Australian military social history books, including *Tarakan: an Australian Tragedy*, *Quinn's Post*, *Anzac*, *Gallipoli*,



*Invading Australia*, *A Stout Pair of Boots*, and *Digger Smith and Australia's Great War*. His *Bad Characters* was jointly awarded the Prime Minister's Prize for Australian History in 2011. His next book will be *Black Saturday at Steels Creek*, on the 2009 Victorian bushfires.

The Conference dinner (included in Earlybird, Full, and Student registration) is at the Angliss Restaurant (William Angliss Institute), 555 La Trobe Street, Melbourne, on Thursday 11 April 7.00pm. [www.aneliss.edu.au/Restaurants](http://www.aneliss.edu.au/Restaurants)

Registration is inclusive of a guided bus tour on Friday 12 April, sponsored by Melway Publishing. The tour will be conducted by Professor Bernie Joyce and Dr Bill Birch, interpreting landscapes and geological features of Melbourne's Western Districts. The tour will depart the State Library 9.15am, returning 4.30pm. There will be a display of maps at the conference, including some the State Library's magnificent early survey maps of Port Phillip, and other military, geological, and land use maps, from colonial times to the present day.

Accommodation: may be found via several websites, eg- <http://www.melbourne.com.au/hotels.htm> [www.expedia.com.au](http://www.expedia.com.au) [www.wotif.com](http://www.wotif.com) etc. Please note that the State Library of Victoria have a mates rates deal with Quest on Bourke apartments. Please mention you are attending an event at the State Library. Vanessa Warnock, General Manager - Quest on Bourke. 155 Bourke Street, Melbourne VIC 3205. Tel: +61 3 9631 0400 Fax: +61 3 9631 0500 Mobile: +61 427 430 242

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**STUDENT FUNDING OPPORTUNITIES****Geological Society of Australia (Victoria Division) Student Research Scholarships**

The GSAV are pleased to offer up to \$10,000 per year in scholarships available to honours and postgraduate students for assistance with travel costs associated with conferences and field work.



The scholarship is valued at up to \$500 for travel within Australia and \$700 for travel outside of Australia. The number of and value of the scholarships awarded each year is made at the discretion of the GSA(Vic) committee.

Funding will not be granted retrospectively and applicants are asked to submit forms no later than 6 weeks prior to their trip to give the committee time to consider the application.

Students that receive this scholarship are required to submit a report for publication in the newsletter, "The Victorian Geologist", following their trip. A presentation may also be requested by the committee, which will consist of a short, 10-15 minute presentation prior to the monthly seminar.

Applications forms can be scanned and emailed to: [secretary@vic.gsa.org.au](mailto:secretary@vic.gsa.org.au)

or mailed to:

Geology Research Scholarships Victoria  
Geological Society of Australia (Victoria Division)  
GPO Box 2355  
Melbourne VIC 3001

More information including eligibility criteria can be found on the form and by contacting Barbara Wagstaff ([wagstaff@unimelb.edu.au](mailto:wagstaff@unimelb.edu.au))

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**Something interesting to share? Want to see your name in print?**

Don't be bashful, contribute to the GSA(V) monthly newsletter!

If there are any events, happenings, news, or views that would be of interest to the membership, please send your details and information to Matt Bliss at [mbliss@student.unimelb.edu.au](mailto:mbliss@student.unimelb.edu.au)

**We'd be glad to hear from you**

## FORTHCOMING SEMINARS AND EVENTS

to be presented at  
GSA (Victoria Division) meetings

Note: unless otherwise indicated, all 2013 talks will be held in the Fritz Loewe Theatre, Earth Sciences Building, University of Melbourne.

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March 21st	John Webb TBA
May 2nd	Annual General Meeting TBA
May 30th	Alan Goode <i>Data Metallogenica</i>

No new members this month



Visit the GSAV on [www.vic.gsa.org.au](http://www.vic.gsa.org.au) or the GSA on [www.gsa.org.au](http://www.gsa.org.au)  
• Renewing your GSA membership is easy - it can now be done online. •

### CONSIDER CONTRIBUTING TO TAG!

It is member contributions which make TAG a member magazine – please keep the contributions coming and assist with informing all of the membership (not just your Division) about your activities.

Please send your news to: [tag@gsa.org.au](mailto:tag@gsa.org.au)



### GSA (VICTORIA DIVISION) COMMITTEE

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GPO Box 2355, Melbourne, VIC, 3001  
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#### OTHER CONTACTS

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#### Newsletter deadline:

First Friday of the month except Dec & Jan  
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