

Welcome to the second issue of the AuScope's quarterly Email Update.

AuScope will be undertaking a stakeholder survey in May to gauge the effectiveness of the organisation and the level of satisfaction with the outcome to date of the six components. The Survey will be promoted to AuScope's stakeholders and we are looking forward to a healthy response. The results of the survey will be available prior to the Mid-Term Review that AuScope is conducting in June.

Conferences – AuScope will have a presence at the following conferences and meetings – SARIEC, SGA 2009, 2009 WALIS forum,

Please forward the update to anyone in the wider research community who would be interested in finding out more about the AuScope investment in earth science infrastructure in Australia.

**Bob Haydon**  
CEO, AuScope Ltd

**AuScope Grid and Interoperability Program Director Robert Woodcock**

The **AuScope Discovery Portal** is now up and running - to access the Portal visit <http://portal.auscope.org/gmap.html>

A promotional video on the main components of the Portal is available at: <https://twiki.auscope.org/twiki/bin/view/Grid/WebHome>

The **Grid Team** is hitting the road in June to run a series of Information Events about the Discovery Portal for all **State and Territory Surveys**. The roadshow dates are:

- Tuesday 2 June - Melbourne
- Wednesday 3 June - Hobart
- Friday 12 June - Darwin
- Friday 19 June - Canberra
- Tuesday 11 August - Perth
- Friday August 21 - Brisbane
- Monday August 24 - Maitland
- Wednesday 26 August - Adelaide

If you are interested in attending contact your State Government Survey for more details or AuScope's **Bruce Simons** or **Ryan Fraser**.



The new look AuScope portal.

**National Virtual Core Library Program Director Jon Huntington**

The first of the new generation of HyLogging instruments, a **HyLogger 2**, was delivered by CSIRO to **PIRSA** for their Glenside Core Library in Adelaide on Monday May 4th. Commissioning and training will follow and PIRSA's NVCL project leader, **Alan Mauger** is hoping it will be running operationally within a month. The new AuScope HyLoggers will be supported by a new version of the industry standard **TSG-Core software** package (TSG7) also from the CSIRO's Division of Exploration and Mining.

The **Geological Survey of New South Wales NVCL node** at the Londonderry Core Library is now fully staffed (geoscientist Dr Meagan Clissold and two supporting part-time technicians) and installed in a custom-built transportable building housing the logging equipment. Logging procedures and protocols are in place and, since mid-February, the team has been logging prioritised drill core using a HyChips instrument. These include several from the Majors Creek gold field (Dargues Reef) near Braidwood, and the Doradilla tin province in northern NSW. The NSW Survey is scheduled to commission its new HyLogger-2 instrument in the next two weeks and officially launch the node at the "Exploration in the House" seminar in Sydney on June 18th. Contact **Bill Reid** (02) 4931-6731.



The new HyLogger 2 with the NVCL development team.

**Earth Composition and Evolution Program Director Bruce Schaefer**

Research activity at each node is proceeding at or ahead of the levels anticipated. Throughput and total number of analyses has been increased.

Final installation and testing of the **Cameca 1280 SIMS** housed at UWA is underway with a formal opening of this facility scheduled for 10-11th June. AuScope committed ~25% of the funds to this capability, which is jointly owned with the **AMMRF** and housed in the **CMCA** (Centre for Microscopy, Characterisation and Analysis) at UWA with access managed through a committee operated by **JdL** (John de Later Centre for Mass Spectrometry at Curtin University) and **UWA**. A draft access policy has been formulated and is under consideration.



Cameca 1280 ion microprobe.

**Earth Imaging and Structure Program Director Brian Kennett**

The first phase of passive seismic data collection by AuScope in the **Gawler Craton** has recently been completed and the 35 stations will shortly be deployed in the Curnamona Craton. The records of distant earthquakes are exploited to produce 3-D images for the structure in the crust and uppermost mantle beneath the networks.

The objective of this work is to provide 3-D structural information to link to the detailed reflection seismic profiles and thereby provide a better characterisation of crustal architecture.



Passive seismic collection.

**Earth Simulation, Analysis and Modelling (SAM) Program Director Louis Moresi**

The **Pplates** desktop tectonic reconstruction software is a component of the AuScope Simulator that fosters research involving modelling and simulation at a range of scales. Pplates is designed to allow structural geology and tectonics research involving small-scale to large-scale heterogeneous movements, including movements on faults and shear zones, at regional, continental, or planetary scales. Pplates flexibly accomplishes this diversity by implementing a different reconstruction paradigm, involving deformable, tearable meshes.

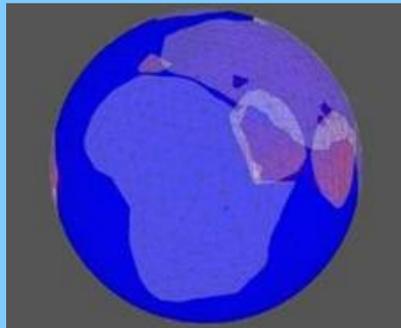
**Geodynamics of the Australian Plate- Research Meeting and associated Workshops** 8 - 10 June 2009, Monash University Caulfield Campus

There is an open invitation to attend the inaugural GAP Research Meeting on Monday 8th and Tuesday 9th June 2009. The meeting aims to bring together academics, industry participants and students, whose research is focused on geological, geophysical and/or surficial processes associated with the Australian Plate.

The **GAP Initiative Planning Meeting** and **GAP Workshop on Fluid Flow, Mineralisation & Metamorphism** will follow on Wednesday 10th June 2009, at Monash University Caulfield Campus. Registration to attend the events is free, and includes tea breaks and lunch. Please visit <http://geodynamics.monash.edu.au/> for more information and registration details.

Potential, new and current users of **Underworld** are invited to attend a half-day Underworld Grid Workshop on 10th June 2009 at Monash University Caulfield Campus. Places are limited, and registrations close Wednesday 3 June 2009.

For more information and to register, please visit <http://geodynamics.monash.edu.au/underworldgridworkshop/>



This image shows a set of continental plates whose velocities are being used to drive a spherical deformable elastic mesh. The central plate is Africa, and the colouring of the spherical mesh indicates the driving force magnitude (blue is none, red is maximum). The forces on the Indian, Arabian and Iberian plates can be clearly seen.

**Geospatial Framework and Earth Dynamics Program Director Gary Johnston**

A new 12 metre telescope dish was lifted into place at the **UTAS Mount Pleasant Observatory** as part of a new Australia-wide network.

The network aims to examine the structure and evolution of the Australian continent in time and space.

Later this year telescopes will also be installed at Yarragadee in Western Australia and Katherine in the Northern Territory to complete the triangle-shaped network.

The new telescope will allow astronomers to use quasars - objects billions of light years away - as fixed points of reference. At the moment it's possible to make centimetre-level measurements but AuScope aims to improve that to millimetre levels.

UTAS will operate the new facility for AuScope with the telescopes controlled remotely from the Hobart campus. For more information visit <http://www-ra.phys.utas.edu.au/auscope/status.html>



New 12 metre UTAS telescope dish.

This update will be issued every three months to the Australian geoscience research community, keeping you up to date with the latest developments and progress of each of the six AuScope infrastructure components. Please forward the update to anyone in the wider research community who would be interested in finding out more about the investment in earth science infrastructure in Australia.