



AGOS Progress Quarter 4 2013

At the conclusion of Quarter 4 2013 (30 June 2013), all planned milestones had been reached in line with the AGOS Agreement. Previous notification of delays in commencement of construction of the 4 remote CORS GNSS sites has been made and other than this, all equipment and physical infrastructure for the AGOS infrastructure has now been acquired, ordered or is under construction. Deployments by end-user research groups are underway in several areas.

The Earth Sounding Network

Progress has been on track in all areas, apart from a delay of several months in receiving the completed OBS units to be shipped from the UK.

The Earth Data recorders, which became field ready in December 2012, are now in heavy use both in Australia and overseas (New Zealand). The Bass Strait experiment, which used 24 of these units is now complete, and the recovered units are likely to be shipped to WA in the near future for another passive seismic experiment.

All 200 of the new generation ANU short period recorders have now been built; this is twice as many as originally promised, due to the strength of the Australian dollar and efficiencies in production. Many of the recorders are already in operation in the field in New South Wales and Queensland

The Ocean Bottom Seismometer (OBS) units will start being shipped from the UK in Q1 FY2014; which is several months later than originally expected. Negotiations have begun with the Marine National Facility to secure a place on the RV Investigator during its initial at-sea trials in November 2013 to allow for a test deployment. GA has agreed to host the new OBS pool.

The final equipment purchases for the ANU network comprising 50 Trillium Compact seismometers have been delivered and are now ready for deployment.

Construction of the electric field loggers, at Adelaide University, is complete with field-testing underway. The fleet of instruments will then be fully available to the Australian Geophysical community.

The Geohistory Laboratory

No further infrastructure expenditure has been undertaken on the Melbourne University node or the Curtin node of the Geohistory laboratory. Inter-node calibration experiments between the Melbourne and Curtin have continued.



The Subsurface Observatory

The Subsurface Observatory petrophysics laboratory continues to run smoothly. Numerous samples have been analysed this quarter and a series of new projects proposed that will include extensive use of this facility later in the year. Repairs have been undertaken on the optical thermal conductivity instrument and it is now operating correctly again.

The new subsurface observatory research infrastructure capability, access arrangements and running costs have been compiled and published on the AGOS website.

An order for the last piece of AGOS funded equipment for the observatory - the acoustic televiewer - has now been placed. Delivery is expected in the next quarter.

Two large Access Funds proposals have been received by the Access Committee and are now in review by the Access Committee.



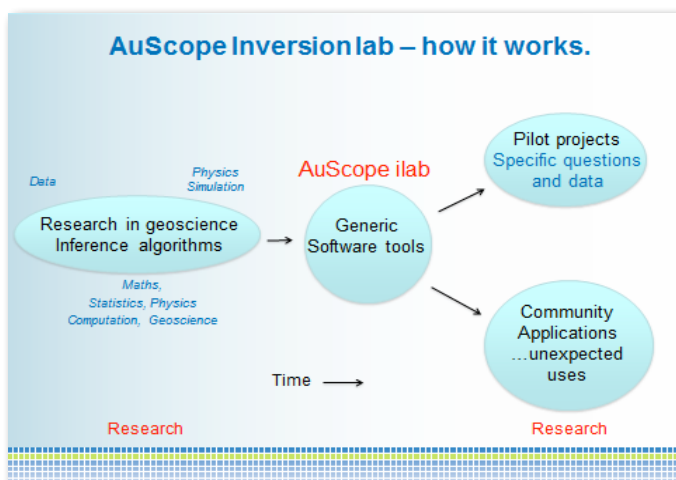
The Inversion Laboratory

Progress continues to be made on launch of a new single site web portal for code download with the launch expected later this year.

The first version of inversion software for potential field inversion has been released and reviewed by researchers at Geoscience Australia

Some preliminary work has been completed on speeding up 2D tomography codes as this is the next area to concentrate on.

All of the new Terrawulf III (TIII) compute servers are operating and users are routinely running production code on the cluster. The cluster has been running at an average 70% capacity with peaks above 90%. All standard cluster software installed on TII is available on TIII and specially requested packages are being installed as needed.



The Geospatial Observatory

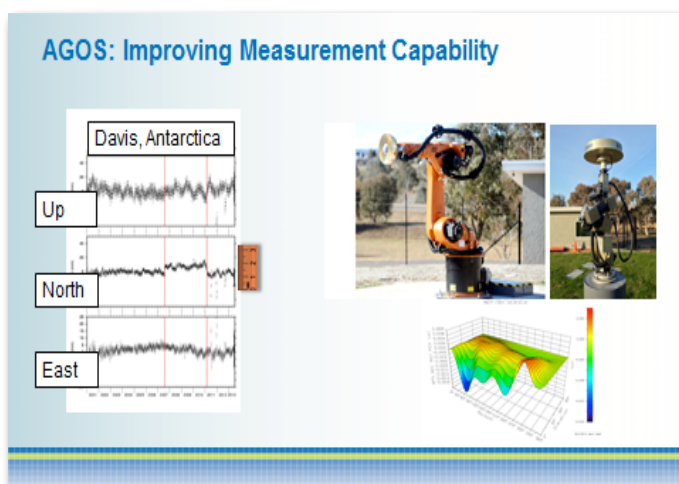
The Robotic GNSS Calibration Facility has been completed and opened by the Minister for Science and Research. First calibration experiments have been completed. Some minor works supporting improved security of the facility have commenced.

The Remote Sensing Web Portal project was completed. ERS1 and ERS2 SAR data from 1992 to 2000 is available for download via the AuScope Portal for the research community.

The GNSS instrument pool is now operational and analysis of the first three AGOS surveys is ongoing.

Prototype radar reflectors have been built and calibration by DSTO, Department of Defence, has commenced. They will subsequently be deployed to the Surat Basin, Queensland, to support the measurement of subsidence in Coal Seam Gas extraction areas.

Contractual discussions with the Queensland Government regarding the build of a survey network in the Surat Basin are ongoing.



The Geophysical Education Observatory

During this quarter the Australian Seismometers in Schools Network has focused on logistics and installations of primary instruments. The second shipment of seismometers was delivered in Q4 and these are currently being tested. Installation has been completed for 14 of the 40 instruments and plans for installations in the remaining states are underway.

National Collaborative Framework (NCF) Agreements have been developed and distributed to State and Territory Governments for the GPS in schools project. The Tasmanian agreement has been signed. The aim is to install 16 sites in total as follows: NT - 3, SA - 3, NSW - 3, ACT - 1, Vic - 3, and Tasmania -3. The sites are likely to use a roof-mounted monument as opposed to the rock-mounted version used in AuScope.



Project Milestones

The status of project milestones is shown in the table below. Note that milestones 35, 38, 43 and 44 shown incomplete in earlier Quarters are included below to show that progress has been made.

No.	Milestone	Projected completion Date	Status
Milestones to 30 June 2012 (reported not complete in Q4 Report)			
35	Earth Sounding Network: Second batch of 50 electric field loggers constructed	30 June 2012	Complete
38	Geophysical Education Observatory: Specifications and design final stage complete	30 June 2012	Complete
Milestones to 30 September 2012 (reported not complete in Q1 Report)			
43	Geospatial Observatory: 4 new permanent GNSS CORS stations installed	30 June 2013	Delay approved by DIISRTE to end June 2013. Work started but progress slow. Access to 2 sites approved with site selection and access in progress with States on remaining 2 sites
44	Geohistory Laboratory: Software interface established	30 September 2012	Complete.
Milestones to 30 June 2013			
54	Annual Business Plan 3	15 May 2013	Submitted and approved by DIICCSRTE
55	Earth Sounding Network: New-generation short-period recorders completed	30 June 2013	Complete
56	Geohistory Laboratory: Inter-nodal calibration completed	30 June 2013	In progress and will be on-going
57	Geophysical Education Observatory: Remaining GNSS pool purchased	30 June 2013	Complete
58	Milestone Report 10 removed by variation	30 June 2013	Complete for internal distribution