

Hot off the Press

The Landgate CORS Project is forging ahead with the establishment of the CORS Network across Western Australia. The following sites are now operating:

- ① Kalgoorlie, Albany, Burakin – streaming data to Canberra
- ① Esperance – data being collected, will commence streaming data to Canberra late February via Next G.

The next site to start sending data to Canberra is:

- ① Norseman - this will be our first solar powered site and will also use Next G.

By July 2009 the network should also be streaming data from:

- ① Hyden – pillar built, pends power connection.
- ① Kellerberrin – pillar built, pends power connection.
- ① Yellowdine – site selected and land tenure approval achieved.
- ① Wagin – site selected and land tenure approval achieved.

With significant progress for sites at:

- ① Ravensthorpe
- ① Kununurra
- ① Broome
- ① Exmouth

All have sites selected and land tenure negotiations commenced.

Wagin has been nominated for some special treatment – it will have dual pillars about 5-10m apart to enable two antennas to operate concurrently providing a transition period when antenna's need to be changed ie when new Global Navigation Satellite Systems (GNSS) such as the European Galileo or the Chinese Compass systems, come on line. Wagin will also have a purpose built hut for housing a high precision Gravimeter for biennial Absolute Gravity observations. These gravity measurements will

provide an independent check on the vertical motion of the CORS sites. There will be 10 such sites around Australia with three in Western Australia - the other two being in the Pilbara and the Kimberley.



Background

The CORS Project was approved by Landgate's Board of Management in 2007. Now moving into its second year of operation, the project is on target to be completed in 2011.

The network of at least 26 GPS sites will provide an efficient, accurate, and accessible geodetic framework for industry and research, with applications in surveying and mapping, climate monitoring, infrastructure planning and any applications reliant on precise positioning. The network will also form the basis for the development of real time positioning services.

If you have any queries regarding the CORS project, please contact a member of the CORS Project Team:

- o **Linda Morgan**, Manager Geodetic Data (linda.morgan@landgate.wa.gov.au) – 9273 7133
- o **Bob McCarthy**, Manager Geodetic Survey (bob.mccarthy@landgate.wa.gov.au) – 9273 7114
- o **Hannah Sforcina**, CORS Project Manager (hannah.sforcina@landgate.wa.gov.au) – 9273 9367
- o **Murray Dolling**, Manager Survey Networks (murray.dolling@landgate.wa.gov.au) – 9273 7411

Other Achievements since July 2008

- ☑ **Next G** – the project is utilising the latest technology for those remote sites where Broadband Internet is not available or the costs of installing a landline are prohibitive. Burakin was our test site for using Next G to stream data to Canberra and since it has been successful we will use this technology on other sites.
- ☑ **CORS the Movie** – a lot of effort by the film makers and project team has been committed to producing a short movie about the CORS Network. The movie is aimed at all West Australians to provide general information about how the network is being established, its purpose and benefits and the anticipated impact it will have on other technology used by industries such as mining and agriculture. The movie is due for release in March.
- ☑ **Auscope** – The Landgate CORS Project is part of a much bigger initiative being conducted at a National scale. This is being coordinated by AuScope Limited under the National Collaborative Research Infrastructure Strategy capability of 'Structure and Evolution of the Australian Continent'. For more information about this \$42.8 million project please go to the AuScope website: <http://www.auscope.org.au/index.php>.
- ☑ **Access to CORS Data** – Once sites have been completed, they will be in test mode for around 6 months to ensure the site has remained stable and data quality is up to standard. During this time Receiver Independent Exchange (RINEX) data can be made available on request – contact Linda Morgan – details below. Once the site has been certified by Geoscience Australia the RINEX data will be available on line.

Photo Gallery



Esperance



Burakin



Kellerberrin



Albany

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